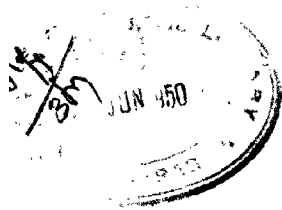


THE INDIAN ARCHIVES



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THE INDIAN ARCHIVES

Volume I

April, 1947

Number 2

RAW MATERIAL OF HISTORY¹

SIR MAURICE GWYER

Vice-Chancellor, Delhi University

THIS is the first of a series of talks on a very interesting and important subject, the preservation of historical manuscripts, and they will give some account of the work which the Indian Historical Records Commission is doing in organizing the search for these documents, in arranging for their preservation and protection when found, and in providing the necessary machinery, central and provincial, for making indexes and calendars of them, and thus enabling scholars and researchers to avail themselves of any historical material which the manuscripts themselves may contain.

For the very early history of India we have to rely on the archaeologists; and, valuable as their work has been, they themselves will tell you that they are only at the beginning of their task. But for the later periods, written records of all kinds are the raw material of the historian. Many of these are public records, in public custody; but there is also a great wealth of material to be found in the letters and memoranda of private individuals, and in local records. The keeping even of public records has often left much to be desired, but until the establishment of the Indian Historical Records Commission, there was no organization of any kind covering the whole of India which interested itself in the preservation of private manuscripts. The Commission was set up in 1919 and its contribution towards the creation of public interest in historical records and the stimulation of research has been very substantial. Nevertheless, there are still many provinces which have no organized record offices; and even where these exist they often provide no facilities for research scholars by

¹ Broadcast from Delhi Station, All India Radio, 24 August, 1946.

means of reference books, calendars and indexes. But one of the main objects of the Commission was to organize a survey of records of all kinds with a view to rescuing valuable manuscript records in private custody from the ravages of time, of insect pests and other destructive agencies, including, it must be admitted, man himself.

In 1942, the Commission was reconstituted and at its meeting in that year in Mysore it decided that regular machinery should be set up throughout the whole of India for the purpose of salvaging documents in private custody. The World War was raging at the time and money was difficult to find for purposes more appropriate to times of peace. Hence no Provincial Government, except in the Punjab, found itself able to act on the recommendations of the Commission. The Commission, however, taking into consideration the great urgency of the matter and especially the dangers arising from the demand for old documents for pulping and re-making into paper, decided to set up temporary Committees to carry on the work until the Provincial Governments found themselves able to take over the responsibility at a later date.

In 1943, ten *ad hoc* Regional Survey Committees had been set up. These covered all the Provinces, Assam being grouped with Bengal for the time being, and Sind with Bombay. Many Indian States also showed themselves eager to assist, and Committees were set up in a number of States, large and small, including Hyderabad, Baroda, Mysore, Travancore, and no less than fourteen others. As I have said, the Government of Punjab was the first to establish a permanent Committee; but the Central Government came to the rescue of the Commission by extending financial help towards the carrying out of the work of the temporary Committees in the other Provinces. Government have also been of much assistance to the Commission by enabling its work and that of the Provincial Committees to become more generally known. This has been done through the agency of All India Radio and the Government's Press Information Bureau with very valuable results. The written records of every country, whether they are in public or private hands, form part of that country's national heritage. I do not suppose there is any country in the world where such records have not at some period or other been in danger of loss or destruction through ignorance or neglect; but as appreciation of their importance grows and people become more and more interested in their own history, organizations like the Indian Historical Records

Commission have been set up in most civilized communities and for the same purposes.

The growth of a school of modern Indian historians has been remarkable, and comprehensive schemes for the writing of Indian history through the combined efforts of groups of historians are now being undertaken. But no historian can write true history unless the original materials are available and unless he knows where to put his hand upon them. There are ancient and aristocratic families in India, as everywhere else, who have preserved valuable collections of important documents from generation to generation. Too often, however, these have been found by the Commission to be ill-kept and ill-cared for, sometimes only preserved in wooden boxes, sometimes merely tied into bundles and wrapped in cloth. It is to be feared that many documents have been lost or irretrievably damaged in the course of years; but many could still be rejuvenated by the application of modern scientific processes. The havoc wrought by white-ants is familiar to all of us, but it is not so generally known that some insects which make their home among ancient manuscripts are not even visible to the naked eye and can only be detected by a microscope. Insect-life is indeed responsible for much destruction, nor has any race of insects yet been discovered which knows how to distinguish between a valuable manuscript and a worthless one. It is a not uncommon practice among some more prudent owners of manuscripts to put *neem* leaves between the sheets of paper; I am told that the research laboratory of the Imperial Record Office has satisfied itself that the insecticide properties of highly concentrated *neem* extract are quite effective as is commonly believed. But it is not only living creatures which can destroy a manuscript. The direct rays of the sun have been found to be as injurious as inundation by water. Humidity promotes the growth of mildew and various types of fungus. The alternate absorption of moisture during the monsoon and its drying out during the cold weather causes brittleness and a steady deterioration of paper. In parts of India, where the climate is very dry, paper requires to be humidified at intervals; and where humidity is so great as to produce mildew and fungus, fumigation from time to time is required. In great cities there is the further danger of acids and gases present in the atmosphere.

In times past many valuable manuscripts of all kinds have been exported to foreign countries, because no legislation existed which

would enable them to be preserved in the land of their origin; and it must be regretfully admitted that very often they have been far better looked after in their new than in their old homes. With the growth of the national consciousness, and one might also add, the national conscience in such matters, it is to be hoped that all measures taken by governments in India, both Central and Provincial, for the preservation and protection of these national treasures will receive an ever-increasing support from Indian citizens of every class and community.

There is a great deal of romance about collections of old manuscripts; and there must be many collections in India, as in other lands, in which a researcher can never be certain that he may not come unexpectedly upon some hidden treasure beyond all price. Let me give one or two examples of what I mean from other countries. At the beginning of the last century, a German scholar discovered in the Vatican library in Rome a manuscript of the Institutes of Gaius, a famous work on Roman Law of the classical period, of which no copy had ever before come to light. About fifty years ago, near the site of the old Greek town of Oxyrrhynchus in Upper Egypt, buried heaps of town rubbish were discovered and, preserved for fifteen hundred years by the dryness of the sand, were found to contain, among much of course which was quite worthless, very important and hitherto unknown fragments of classical Greek authors; and also what might be described as the contents of numerous waste paper baskets, including household bills and accounts, letters exchanged between friends, even invitations to dinner, in short, material from which an extraordinarily vivid picture could be constructed of the domestic life and habits of the people of that particular region. And only last spring, in a private library in the North of England, a volume was discovered containing pirated copies of nine of Shakespeare's plays, all published during his lifetime, of which no other copy was known to exist in England, though I believe that there is one in the United States. This of course was the case of a book, not a manuscript; but it shows how a rarity of great value (it has since been sold for Rs.15,000) can lie hidden and unsuspected for centuries in private ownership.

Why should not similar discoveries be made in India also? The scholar and the archivist will always pray that such miracles will one day happen to him; and I think that it was the late Mr. G. K. Chesterton

who once observed that the most remarkable thing about miracles is that they do sometimes happen.

I venture, therefore, as the Vice-Chancellor of a University and numbering scholars and historians among my friends not only in Delhi, but in other Universities also, to invite the attention of the public to the problems which arise in connection with the preservation of documents in private custody. I am perfectly certain that this generation will never be forgiven by the generations which come after, if all these valuable national treasures are allowed to be lost or damaged beyond repair by neglect or indifference. The Regional Survey Committees of which I have spoken have been placed in charge of eminent historians and scholars in the Provinces of India. I should like to give the names of all of them, but my time is strictly limited by the regulations of All India Radio. I cannot, however, omit one name, that of Dr. S. N. Sen, the Keeper of the Archives in Delhi, a rare combination of historian and administrator, whose enthusiasm in the cause which I am advocating this evening is an inspiration to all. The Survey Committees have started work on national lines and they are prepared to assist owners of private manuscripts in any way possible. Those members of the public who are so fortunate as to possess collections of documents, great or small, are therefore earnestly requested to get into touch with the Committee of their region and co-operate with them in every way for the purpose of carrying out this programme of truly national importance.—(*By permission of All India Radio.*)

MANUSCRIPTS ON BIRCH BARK (BHURJAPATRA) AND THEIR PRESERVATION

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IN many countries birch bark has been occasionally employed for writing instead of paper. In Europe it has at times been used as note-paper by hikers or soldiers having outings in the countryside. They employed it either by way of joke or for lack of real paper. Birch bark was utilized in the same way in North America in the seventeenth century.

The Bibliothèque Nationale of Paris (Department of MSS., *New French Acquisitions 6561*) has preserved two letters on birch bark. One, in French and dated 28 June 1647, comes from Père Joseph Poncet, a Jesuit missionary. The other in the Huron dialect, written in Roman character modified by diacritical signs, and with a French translation opposite, is a letter of thanks from some young Hurons to a French benefactor. It is dated October 1676. The first letter bears the marks of two folds. Possibly, it was despatched from America folded within a sheet of paper serving as envelope. At present these letters are preserved spread out, each being placed between two sheets of glass framed in wood. The bark is fine, brown on one side and white on the other, and marked with brown-coloured oval spots. The dimensions of the first letter are 177 mm. in height, and 130 mm. in width on one side and 145 mm. on the other. The second is 220 mm. wide and 120 mm. high on one side and 130 on the other. These measurements show that care had not been taken to cut the sheets of bark to a regular shape, or that sufficiently large sheets were not available so that a part could be sacrificed for the sake of giving a finished trimming. In the first letter the writing runs parallel to the smaller side, in the second to the wider; the two texts, Huron and French, are placed side by side.

M. N. N. Poppe has on the other hand published fragments from a Mongol MS. on birch bark, made up of sheets measuring 85 mm. x 100 mm. (*Zolotoordynskaia rukopis'na bereste Sovietskoe Vostokovedenie II, 1941, p. 81, with plates*).

Such examples of the employment of birch bark are, however, rare. It is in north-western India and Central Asia only that birch bark has regularly and for long ages been the material for books, even of those in a large format.

It is certain that the use of this bark in India dates from ancient times. The historian of Alexander the Great, Quintus Curtius Rufus, while enumerating the various curiosities of India, made the following statement in the course of his writings: 'Tender bark of trees takes the signs of letters just like paper (sheets of papyrus)'—'*libri arborum teneri, haud secus quam chartae, litterarum notas capiunt*'. (*Hist. Alex.*, VIII, 9). The word *liber* may, it is true, mean as well, together with the bark, the soft wood which lies underneath it (*liber* of the botanist), and we know from other sources that the *liber* of Agalloch or Aloes wood (heart wood of *Aquilaria ovala*) was employed in India for writing. But the reference of the Latin author is to north-western India, which was the centre where birch was employed, while the Agalloch is a tree of eastern India. Furthermore, although the date of Quintus Curtius is uncertain (he is usually placed in the first century A.D., but some have wanted to bring him down to the fourth century), his information goes back to all appearance to the age of Alexander who advanced into India in 327 B.C., and whose first historians, who constitute the sources of Quintus Curtius, were his contemporaries and companions. Thus we may say that the use of birch bark as writing material dates as far back at the least as the fourth century B.C.

The earliest known manuscript on birch bark was found in Central Asia, at Khotan. It had been split up into two parts by the native who had found it and he sold one part to the French Mission of Dutreuil de Rhins in 1892, and the other to the Russian Consul at Kashgar, Petrovsky. The first part, called the *Manuscript Dutreuil de Rhins*, is preserved in the Bibliothèque Nationale of Paris (Pali Collection: Fonds Pali, 715). It was published for the first time in 1898 by Emile Senart (*Journal Asiatique*, Sept.-Oct., 1898) and lately by H. W. Bailey (*Bull. of the School of Oriental and African Studies*, Vol. XI, Part 3). A fragment of the Petrovsky Manuscript was published by Oldenberg (*Prédvarimél'naia zamyémka . . . St. Petersburg*, 1907). This manuscript which contains a version of the Buddhist Dhammapada (Dharmapada) in a Prakrit dialect is written in the Indo-Aramaic script called Kharosthi and dates from the first century of the Christian era (the first according to Bühler and Sten Konow and the third

according to Lüders). Originally, it was composed of long strips of birch bark, held together at the two sides by a thread stitched within one centimetre of the edge. The strips were rolled in such a manner that the original appearance of the book was like that of a *volumen* of classical antiquity. It has been supposed that a form like this is by itself an indication of the great age of the manuscript, birch bark being employed in sheets in the more recent books from Kashmir. It has also been suggested that this could indicate Western influence on the Indian technique of book-making. The possibility of imitations of the Chinese roll could also be suggested. But in actual fact, long strips of birch bark have been employed also in north-western India in modern times. One of the manuscripts of the *Bhagavadgita* preserved in the Bibliothèque Nationale of Paris (*Sanskrit MS. 1142*) is precisely a roll of birch bark 1760 mm. in length and 45 mm. in width. It is written in ordinary *Nagari* in a very small hand and can hardly go further back than the eighteenth century. The practicability of taking off long strips of birch bark from the tree is sufficient explanation of the fact that such strips have always been used, and in order to preserve them they had necessarily to be kept in rolls, since folding would have broken the bark. Thus there is no ground for considering the use of a roll as proof of antiquity or of imitation of a foreign method.

Besides, this method is enjoined in certain cases by the *tantrik* ritual. The *dharani* and *vidyamantra* at times found in the hollow statuettes are frequently written on very tight and small rolls whose use is very widespread in Tibet. Birch bark is specifically prescribed for writing charms (cf. J. Filliozat, *Kumaratantra de Ravana, Cahier de la Société Asiatique IV*, Paris, 1937, p. 146). The manuscript of the *Bhagavadgita* which has been just mentioned is, to all appearance, a sort of portable charm, as small in size as possible.

Normal manuscripts constituting true books are in sheets trimmed to the size of palm leaves or sheets of paper which are equally used in India. In one respect, birch bark makes its appearance most often as a substitute, employed principally in those regions where palm leaves and paper were rare. In olden times it is the imitation of the palm leaf which predominates, in modern times the imitation of sheets of paper.

The principal ancient manuscripts on sheets of birch bark have been found in Central Asia and not in India, but the technique of their

manufacture is certainly Indian, because the palm leaf which was imitated was a product of India. The Bower Manuscript, published by Rudolf Hoernle (Archaeological Survey of India, New Imp. Series, Vol. XXII) is well known. The Buddhist manuscripts discovered in Bamiyan in 1930 and in Gilgit in 1931 are mostly on birch bark, mixed with a lesser number on palm leaves and paper (cf. Sylvain Lévi, Note sur des Manuscrits Sanscrits provenant de Bamiyan et de Gilgit, *Journal Asiatique*, Jan.-March, 1932). They are mostly older than the tenth century. In that age the normal form was still the palm leaf, for, not only the sheet of birch bark, but even paper was trimmed like palm leaf and pierced with a hole for the passage of the fastening thread and the lines were disposed parallel to the longer side.

The more recent manuscripts on birch bark come generally from Kashmir and are in *Sarada* script. The sheets are no longer oblong with the lines running parallel to the wider side, but rectangular with the lines parallel to the narrower side. They have no hole for passing the thread and are often bound in the manner of Persian books and Kashmiri books on paper. The sheets are folded in two and placed one within the other in small bundles. The hinges of each bundle are pierced by thread and attached by them to a rigid back of leather. But the bark, when folded, often breaks, and the majority of the ancient bound volumes have come to us in loose sheets.

The format varies as in books made of paper. The famous manuscript of the Paippalada recension of the *Atharvaveda*, which is preserved in the University of Tübingen (M. Bloomfield and R. Garbe, *The Kashmerian Atharvaveda* . . . reproduced . . . Baltimore, 1901) is made up of sheets 20 mm. by 25 mm. The format of an ancient manuscript of the *Vanaparvan* of the *Mahabharata*, collected by the first Foucher mission in north-western India and preserved in the Bibliothèque Nationale (*Sanscrit No. 375*) reaches the size 25 cm. by 30 cm. A fragment of the binding of this manuscript still exists.

The preservation of manuscripts on birch bark often presents fairly difficult problems. On occasions birch bark can very well resist the effects of weather, because one of the oldest manuscripts from India or indianized countries, the Dutreuil de Rhins manuscript, is on birch bark. But this manuscript, like all the others which have come from Central Asia, had been preserved in exceptionally favourable climatic conditions. Those which have been subjected to damp for a long time have, on the contrary, suffered a good deal. The bark does

not get softened by water, but often the sheets stick together and become extremely fragile. Eventually the manuscript, although thoroughly dried, crumbles to dust when an attempt is made to open it.

Also, the bark is made up of very thin skin-like layers which at times fall apart along the natural lines of cleavage. If that happens, the writing is supported only by the superficial skin of the bark, whose thinness makes it extremely fragile. The cleavage generally begins at the free edge of the sheet against which the finger is rubbed when turning over the sheets, and it easily spreads through the whole piece of bark. Old manuscripts often have bands of paper gummed to the *recto* and *verso* of the pages to prevent this cleavage and the fraying of the margins. But the margins when so reinforced become harder than the remaining exposed surfaces and these easily break along the line of the reinforcing paper. Most often the sheets also break along the accidental folds of the sheets. Birch bark ought to be preserved flat and without any reinforcement of the edge with added strips.

Preservation under glass may be satisfactory. Each page placed between two sheets of glass framed in wood or edged with cloth or paper is safe from folds and cleavage as also from surface erosion. But glass is heavy and, above all, brittle. Breaking of the glass, or even the mere appearance of a crack, puts the bark in contact with a cutting edge which damages or minces it at the slightest displacement. The use of glass is therefore to be avoided.

In the repair workshop of the Bibliothèque Nationale of Paris tests have been going on for many years to replace glass by some transparent material which is at the same time light and unbreakable. Each page of the *Vanaparvan* to which reference has been made above, has been placed in a sheath made of two sheets of a synthetic material, sold commercially under the name of 'acetophane'. The sheets are sewn on three sides, while the fourth remains open for the insertion of the sheet of bark. This substance, in appearance like gelatine, is very transparent and fairly stiff even though its thickness is less than one millimetre. Nonetheless, to increase its rigidity each envelope has further been fitted within a frame of thin boards. On one side of the frame has been added a wide guard or binding strip which makes it possible to bind together the whole manuscript. In this way the manuscript looks like an ordinary book, but every one of its pages is completely visible and protected at the same time.

An even simpler method, which could be equally satisfactory, would be to employ sheets of another transparent material called 'rhodoid'. These sheets, which are slightly thicker than those mentioned above, being about one millimetre in thickness, are more rigid, and it is easy to use them exactly like sheets of glass. The page of bark is placed between two sheets which are lightly joined with a touch of adhesive paste or gummed paper, and then the edges of the sheets are kept together with a strip of cloth fixed over both the sheets all along the outer edges. The adhesive sticks well to this material and therefore the whole is firmly sealed, while the labels can be placed on the sheets just as if they were made of glass. The substance is non-inflammable and resists damp very well. During the war it was employed frequently and with advantage for replacing window panes in bombed cities where the windows were exposed to all the inclemencies of the weather.

The problem of treatment and preservation which is most difficult to solve is that which is presented by manuscripts whose pages have got stuck or crushed. The bundles found at Bamiyan whose sheets were but an inseparable mass as well as a débris of crumpled pages glued together by dried mud, had been given to the Musée Guimet of Paris by His Majesty the King of Afghanistan in 1930. Many slightly damaged sheets could be detached by Joseph Hackin, who was then the Keeper of the Musée Guimet and Director of the French Archaeological Delegation in Afghanistan and who in the course of the war met with a heroic death in the North Sea. The rest seemed to defy all attempts at making them serviceable. The slightest attempt to open them out resulted in breaking the sheets into small bits. Exposure to water vapour did not impair the writing because the ink of the manuscript was of an admirable quality, but it did not soften the sheets sufficiently to make them immune from breakage. Then an attempt was made to soften and separate or to disengage them in hot oil.

Paraffin was chosen for this purpose because of its clearness as well as immunity from deterioration. The fragments were immersed in cold oil. Afterwards the receptacle of oil was placed on a gentle fire and heated till only a light smoke came out from the oil. The birch bark very quickly ceased to become brittle and became detachable in the oil with the help of a pair of tongs with flat jaws like those used by philatelists. The dry mud split up easily and it became easy to take out the bark. Each piece, once cleaned, was drained and laid on a

sheet of glass. This operation was rendered easy by the pliability which the bark had acquired. The blackness of the ink was enhanced by the oil and the natural colour of the bark was made deeper.

Each fragment remained finally impregnated with oil, as it would have been risky to try to make it free of oil. Since paraffin was not susceptible to deterioration in the course of time, it was decided to seal up each oiled fragment under glass. The method employed for this purpose was copied from that of microbiologists who place their preparation on a slide carrying it and put on this carrying slide another covering slide, the two being sealed along the edges either with paraffin or varnish. Each fragment was covered up with a piece of glass smaller than that which carried it, and the edges were sealed with paraffin. Thus the paraffin absorbed in the piece of bark placed between the two sheets of glass was prevented from seeping out.

Fragments thus treated have since been placed in the Bibliothèque Nationale and have received the numbers: Sanskrit 1809-1812.

This method of treatment and preservation has saved some fragments which otherwise would have been wholly unusable. It is desirable that in the case of new finds of manuscripts on birch bark in a crumpled or sticking condition no direct attempt be made to restore or separate the sheets. In the majority of cases that can result in the deterioration or destruction of the manuscript. If it cannot be treated on the spot by the method described above and has to be despatched to some other place, it is advisable to place it in a box with sand or sawdust covering it entirely. The main thing is to ensure that the fragments are not displaced while they are wholly brittle. Sand or sawdust fills up the interstices and immobilizes the fragments in relation to one another. Thus it becomes possible to transport the manuscript without any danger of its breaking or being reduced to dust from jolts.

Birch bark manuscripts are often old and preserve texts which are otherwise lost or readings which are forgotten. They deserve very special care by reason of their importance and require the same care by reason of their fragility, so that they may be restored and preserved.

—(*Translated from the original in French.*)

THE STATE ARCHIVES OF SOUTH AFRICA

COENRAAD BEYERS

Chief Archivist for the Union of South Africa

THE term Archives is commonly used in two connections: the records themselves are the *archives* of the various bodies which produced them and the office which houses these records when they are no longer current and in which they are preserved, classified, indexed and made available to the public, is also known as the Archives. For the sake of clarity the records may be referred to as Archive Groups, and the offices administering them as Archives Depots. An archive group has been defined as 'the whole of the written documents, drawings and printed matter, officially received or produced by an administrative body or one of its officials, in so far as these documents were intended to remain in the custody of that body or of that official'. (*Manual for the Arrangement and Description of Archives* by S. Muller, J. A. Feith and R. Fruin, p. 13). This definition applies to government archives, but it is apparent that records may be accumulated by any concern, not necessarily a government office, in the course of business. It is, however, with the records accumulated in the course of their work by government departments that the Union Archives are primarily concerned. The Union Archives may, therefore, be defined as the archives depots, which are responsible for the obsolete, i.e. no longer current, records (the archive groups) of all the government departments.

There are four archives depots, one for each province, situated in Cape Town, Pretoria, Bloemfontein and Pietermaritzburg, respectively. Provision is made for an archivist for each depot and, in addition, for a Chief Archivist for the Union at Pretoria and an Assistant Chief Archivist at Cape Town. The first duty of an archivist is to ensure the safe custody of the records committed to his care and the second is to make them available for consultation by the public—the second involves the sorting, classifying, listing and indexing of the records.

HISTORY PRIOR TO UNION

Cape of Good Hope.—The records of the Cape of Good Hope are the oldest in the country and, at present, constitute the largest

concentration of records in any one archives depot. The chief archives groups are the records of the Dutch East India Company from 1651 (the first meeting of van Riebeeck's Council was held on board the *Dromedaris* in the English Channel on 30 December 1651) to 1795; the First British Occupation records from 1795 to 1803; those of the Batavian Republic from 1803 to 1806; and of the Second British Occupation from 1806 to 1910. The great bulk of these records had the good luck to survive practically intact through the decades although it was not until 1876 that any definite attempt was made to care for them.

In 1876 the Government of the Cape of Good Hope appointed a Commission 'to collect, examine, classify and index the Archives of the Colony'. The Commission confined its attention to records prior to 1806. These the Commission found in the Chambers of one of the Judges and the first step was to remove them to a fireproof room in the office of the Surveyor-General. After this, Dr. T. W. G. van Oordt was appointed to examine the documents and report to the Commissioners. He prepared a general inventory of what was found. Many of the older records were damaged by worm and mildew and in others papers were found wanting and irrecoverable. However, on the whole, the more important ones were in a fair state of preservation.

The records were now safe but they were not available to the public, and Dr. van Oordt suggested that a 'Keeper of Archives' be appointed. In 1879 George McCall Theal (the historian) then employed in the Treasury was, in addition to his Treasury duties, appointed 'Officer in Charge of Colonial Archives'. He held this appointment until 1881 when the Rev. Mr. H. C. V. Leibbrandt was appointed Librarian of the House of Assembly and Keeper of the Colonial Archives. In about 1886 the Archives were moved to the basement of the then newly built Houses of Parliament. In 1901 Mr. Leibbrandt relinquished the post of Librarian but retained that of Keeper of the Colonial Archives which was at that time created a separate office and which he held until his retirement in 1908. The following year the Government appointed a Commission 'to have the custody on behalf of the Colonial Government of the Archives'. This Commission served until 1913.

Transvaal.—Housed in the Transvaal Archives are, among others, the records of the various small, short-lived republics such as Lydenburg, the New Republic, Stellaland and Land Goosen and of various settlements such as Zoutpansberg and Utrecht, the records of the South

African Republic dating from 1829 to 1902 (the oldest documents are only miscellaneous papers containing much private correspondence) and the Military Rule, Crown Colony and Responsible Government records from 1902 to 1910.

The beginning of archive organization in the Transvaal dates back to the year 1887 when the State Secretary appointed two officials to arrange the papers of his office, after office hours. In February 1899 the Republican Government appointed an Archivist, Mr. W. T. S. Morkel, for the Department of the State Secretary, but his work related only to his Department and it was not until 1902 that a 'Keeper of the Archives' was appointed, the previous post having lapsed during the war of 1899-1902. Mr. W. J. Fockens was appointed Keeper of the Archives with effect from 6 October 1902, and continued in the post until his death on 26 September 1919.

Natal.—In the Natal Archives are housed most of the records of the Natal Republic, the records of Natal Colony from 1845 to 1910 and the Zululand Government records from 1879 to 1898 and various other groups. There was not a full time official in charge of the Natal Archives before Union.

Orange Free State.—The Orange Free State Archives contain, among others, the records of the Orange River Sovereignty from 1849 to 1854, the records of the Orange Free State Republic from 1854 to 1900 and the Military Rule and Crown Colony records from 1900 to 1907. In Republican times there was no archival organization and it was not until 1903 that Major E. C. Calverley was appointed Government Librarian and Keeper of the Archives. Major Calverley left the civil service in 1908, and a successor was not appointed until after Union.

POST-UNION DEVELOPMENT

Union saw great strides in archives development, although it was not until 1919 that any definite steps were taken to put archives administration upon a sound basis. In that year Mr. (later Dr.) C. Graham Botha, who had been placed in charge of the Cape Archives in 1912, was appointed Chief Archivist responsible for both Union and Provincial archives and the work of co-ordinating the archives of the four provinces was put into effect. In 1922 the Public Archives Act, No. 9 of 1922, was passed, which divides the archives into (a) Union archives and (b) Provincial archives. Those records falling

under (a) are the records of the Central Government since Union, those under (b) are the records of the Provincial Administration and for practical reasons the records of Magisterial office are treated as falling under (b). Records when they are thirty years old are regarded as no longer current and are transferred to the archives depots. The new Magistrates' Courts Act, No. 32 of 1944, puts the age for Magisterial records at fifteen years.

The Union archives are centralized in the archives depot in the administrative capital, Pretoria, and the Provincial archives are deposited in the archives depots of the respective provinces. In terms of the Archives Act an Archives Commission has been appointed, and rules and regulations have been issued for the public use of the archives, the disposal of valueless records, and the transfer of public archives to the depots. There was a great need for archives buildings to house the mass of records and in 1925 provision was made for the Orange Free State archives when a specially constructed archives building was built in Bloemfontein, the first archives building to be erected in South Africa. The Cape archives remained in the basement of the Houses of Parliament until 1934 when they were removed to the old Cape University building in Queen Victoria Street, Cape Town, after it had been especially adapted for archives purposes. In 1936 an archives depot for Natal was built in Pietermaritzburg. The Transvaal archives were, in 1913, housed in the basement of the Union Buildings where they still are. The Transvaal is the only province which has not an archives building.

Archives expansion was not confined to buildings; there was also an increase of staff. In 1924 the post of Archivist of the Natal Archives was created and in 1927 an Archivist was appointed for the Orange Free State. In the Transvaal, Mr. P. L. A. Goldman succeeded Mr. Fockens and on Mr. Goldman's retirement Dr. Coenraad Beyers was appointed to the newly created post of Senior Archivist. This post was, in 1932, converted to that of Assistant Chief Archivist for the Union. On Dr. C. Graham Botha's retirement in 1944 he was succeeded as Chief Archivist by Dr. Coenraad Beyers. The office of the head of the Archives was at the same time moved to Pretoria, and that of the Assistant Chief Archivist to Cape Town. The staffs of the various archives depots have been increased from time to time.

In recent years there has been a marked increase in the use made of the archives of the various provinces. The number of research

students and of the general public using the archives indicates that their value is being recognized as a national asset and that they are of paramount importance for historical research.

Accessions.—From time to time collections of private papers are acquired by the various archives. Among the most important are the Joubert, the Louts, the Leyds, and the Burgers Papers in the Transvaal Archives; the Shepstone and the Colenso Papers in the Natal Archives; the President Steyn, the General Hertzog, and the Abraham Fischer Papers in the Orange Free State Archives; and the Maclear Papers, the F. S. Malan Papers and the Benjamin D'Urban Papers in the Cape Archives.

Photographic Section.—In the Cape Archives there is also a rapidly growing photographic section. There is a photostat machine and also a fully equipped dark room for the photographing of documents and the developing of negatives. Also microfilms of documents can be made. The famous Elliott Collection of negatives and the photographs of his 1910-1911 Exhibition, the Ravenscroft Collection of negatives and a few minor collections are also housed in the Cape Archives. Copies of documents and photographic prints are supplied to the public on payment of a fee. It is hoped that the other Archives offices will also be equipped with the necessary apparatus of this kind in the near future.

Film Archives.—In 1933 the Union Government established in the Cape Archives a Film Archives for the preservation of films of historical and cultural interest relating to South Africa. This collection is gradually being augmented, chiefly through accessions from the Bureau of Information, Johannesburg.

Publications.—There is no separate publication commission in South Africa and the work is done by the Archives staff under the supervision of the Archives Commission. In the Cape Archives the *Argiefstukken 1778-1783*, seven volumes, and the *Kaapse Plakkaatboek, 1652-1707*, one volume, have been published, and in the Transvaal the *Voortrekker Argiefstukken 1829-1849*, one volume. Another Archives publication is the *Archives Year Book for South African History*, of which the Chief Archivist is the editor-in-chief. It was started in 1938 and ten volumes have already been published. Two more are in the press. Theses and other historical writings of importance, based on research in the Archives, are published in this series.

(By kind permission of the Archives of the Union of South Africa.)

A NOTE ON 'SULPH-ARSENIC'

S. CHAKRAVORTI *and* P. C. MAJUMDAR

Imperial Record Department, New Delhi

IN a meeting of the joint session of different scientific societies held at Bangalore on 20 March 1935, Prof. K. Sitarama Iyer, College of Science, Trivandrum, talked on the possible uses of the insecticide called 'Sulph-Arsenic' developed by him, particularly mentioning its uses for the preservation of books. Details of this insecticide were then published for the information of archivists and libraries in a pamphlet entitled *Notes on Preservation of Records*, published by the Imperial Record Department, New Delhi.

The sulph-arsenical insecticide is prepared by mixing 1 lb. of arsenious oxide with $1\frac{1}{2}$ lb. of sodium sulphide with enough water to make 10 gallons for treating books and 20 gallons for treating palm leaf manuscripts. The solution is to be applied with a brush only between the cover and fly leaf of a book since this part is more liable to be attacked by insects. The solution is claimed to be effective for a period of five years. According to Prof. Iyer the pre-war cost of chemicals for treating 70,000 volumes of medium-sized book would be Annas 5 only, the real cost being that of labour for treating books with the solution.

We have from time to time received queries from librarians about the suitability of sulph-arsenical insecticide as a book preserver. Experiments were, therefore, undertaken in the Research Laboratory of the Imperial Record Department to find out the effect of sulph-arsenic solution on the durability of paper. If the solution, while effectively preserving books from insects, adversely affected the durability of paper, it could not obviously be used for the preservation of permanent records of any kind whether bound or unbound.

Samples of good quality handmade paper without water-marks of size 28" x 20" weighing 26.5 lb. per ream of 500 sheets were used for the determination of tensile and bursting strength and folding endurance. Strips 10" long and $5/8$ " wide were obtained from this paper and the measurements were made in motor operated Schopper Testing machines at 64 per cent relative humidity and 75°F. temperature. Two sets of samples were treated with sulph-arsenic

solution and dried and one of these was subjected to accelerated ageing at 100°C. for 72 hours. From the two sets of original untreated papers only one was subjected to accelerated ageing test leaving the other as a control for comparison. The experimental data are given in the table overleaf.

It will be seen from the table that the mere application of sulph-arsenic solution lowers the tensile strength of paper by 14.14 per cent, folding endurance by 35.72 per cent and bursting strength by 18.17 per cent. The loss of tensile and bursting strength on submitting this sulph-arsenic treated paper to accelerated ageing is, however, 15.25 per cent and 40.53 per cent, respectively, compared to the original paper. Accelerated ageing of untreated paper lowers the tensile strength by 11.32 per cent and bursting strength by 24.29 per cent only. The sulph-arsenic solution, therefore, brings about more deterioration in paper than would be produced by baking it for 72 hours at 100°C.

The unusually low decrease in the strength of sulph-arsenic treated paper on further subjection to accelerated ageing tends to indicate that the solution despite its initial alkaline nature brings about such changes in paper as would be brought about by accelerated ageing normally. Possibly the sulphur in sodium sulphide becomes free in the colloidal form and gets oxidized slowly into sulphur dioxide and its acids. The harmful effect of SO_2 is already well known from the works of Kimberly.¹

In view of the substantial decrease in strength brought about by the application of the sulph-arsenic solution its use cannot be recommended in spite of its comparatively low cost. It might be argued that the solution applied between the cover and the fly leaf would not involve the decay of any other part and would prevent insect attack. But if the fly leaf and the cover deteriorate, the binding would certainly give way much sooner and the advantages would be offset by the sharp increase in rebinding charges.

¹ Kimberly, A. E., Deteriorative Effect of Sulphur Dioxide on paper in an atmosphere of constant humidity and temperature, *B.S. Jour. Research*, Vol. 8, 1932, p. 159

C-1	Handmade 28" X 20" weight 26.5 lb. per 500 sheets. Cross direction.	Untreated	..	..	3429 3390	3410	..	..	..	..	..
C-2	Ditto	Accelerated ageing	..	..	2597 2438	2513	..	..	..	..	26.16
C-3	Ditto	Treated with Sulph- arsenic solution.	..	..	2041 2316	2179	..	..	..	..	36.08
C-4	Ditto	Treated with Sulph- arsenic and then subjected to accele- rated ageing.	..	..	1993 1954	1974	..	..	..	..	42.11

*Average of machine and cross direction.

LAWS OF ARCHIVAL SCIENCE

S. R. RANGANATHAN

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I. *First Law*

AN archive is an institution charged with the care of public records. It has to conserve them and also so organize them as to facilitate exploitation by scholars engaged in historical research. In a sense, an archive is a limiting form of a library—even as a straight line may be looked upon as a limiting form of a circle. Archival science may, therefore, be expected to share most of its laws in common with library science and at the same time part company with it in regard to some.

10. *First law of Library Science*

The likeness and the difference alike are traceable in the first instance to the likeness and the difference in the materials concerned. The materials in a library are mostly printed; as such, they are seldom unique copies. Moreover, books of lasting value get republished as often as necessary; while other books of ephemeral value are seldom sought after beyond a certain time. In other words, in a library of printed materials, books may be viewed as mortals, i.e. as mortal material bodies embodying immaterial thought. If a particular mortal coil is thrown off, the thought in it gets re-embodied in another book. A library of printed materials has thus the freedom to escape the obligation to vouchsafe eternal existence. It was this freedom conferred by the invention of printing that helped the advent of the first law of library science—*Books are for use*—and degrade to a secondary position the erstwhile ruling idea—*Books are for preservation*.

11. *First law of Archival Science*

The materials in an archive, on the other hand, are mostly manuscripts and even if they happen to be in printed form, they are all unique in regard to their authenticity. This quality of uniqueness confers on the physical material as high a value and status as on the thought embodied in it. This implies that an archive has to preserve the physical material for ever. For an archive, therefore, it is not

only the thought embodied that is immortal, but also the particular physical body entrusted to its care. An archive recognizes no transmigration of soul, as it were. The thought (soul) entrusted to its care has to be preserved in its original body. The original body has to be treated as an integral part of the soul. The body will, therefore, have to be kept ever renovated with every possible technique that science can provide; for the status and value will be lost if the soul is forced to get into an altogether new body. This is a measure of the tenacity with which the law *Public records are for preservation* persists to be the first law of archival science, though it has been degraded in library science. The successful usurper of the premier position in library science can only have secondary importance in archival science. Indeed the idea *Records are for use* must be thankful to have been given any recognition at all at least in modern days.

12. *Technical Wing*

A consequence of the first law of archival science is the establishment of a technical wing in archives composed of archival chemists, archival mycologists and archival entomologists. A library of printed books is not in need of them, though it can derive some benefit from the findings of archives. The technical wing appears to be still in its infancy. Considerable work of fundamental importance still awaits to be done. The tropical conditions, in which Indian archives have to be, create more problems to be tackled by their technical wings than by those elsewhere. The vast variation in climatic conditions from place to place and from season to season in the same place in India would add to the magnitude of the work to be done by the technical wing.

13. *Air-conditioning*

The first law of archival science would demand full advantage being taken of the rapid progress which is being made in the technique of air-conditioning. As the number of archives in the land will be very few, the cost will be within bounds. Even otherwise the first law would plead that no cost could be too high to preserve the archives of a nation. The cost of air-conditioning may be reduced by the proper choice of the locality in which the archives are to be kept. But it is doubtful if this suggestion of the Law of Parsimony would ever gain acceptance against the inexorable pull that the metropolis has over all institutions of Government. Air-conditioning will, therefore, have to

be done in the fullest measure so as to keep out also dust and other injurious constituents of a city atmosphere.

14. *Mending Department*

In spite of the best efforts of the technical wing and the latest methods of air-conditioning, deterioration in the material stuff of archives will inevitably set in eventually. Then the records will need mending. This is a specialized job which cannot be entrusted to the ordinary binding trade. Nor will the quantum of mending work to be done in any year be sufficient to induce the development of an independent archive-mending trade, as the repair of the printed books of the libraries of the land has fostered the establishment and growth of the binding trade. Archives will, therefore, have to maintain mending departments of their own. The mending department, the technical wing and those who look after air-conditioning will have to work hand in hand and propitiate the first law of archival science as sumptuously as possible by bringing the records themselves as near to immortality as possible. The mending department will be like the doctor who attempts to cure after disease sets in; air-conditioning work will be like that of the health officer; and the technical wing will have to devise methods of *kayakalpa* and rejuvenation for the records. Between themselves all these three must find the elixir of immortality for the archives.

15. *Access*

The universal sweep of the first law of library science has made 'open access' a reality in most of the libraries of the world. It is only in very backward and unprogressive places that readers are denied direct access to books. The revolution which the introduction of 'open access' has brought about in everything concerning libraries—building, architecture, fittings, furniture, heights of shelves, width of gangways in stack-room, arrangement of books on shelves, classification of books and knowledge, cataloguing, provision of guides for tiers, gangways, bays and shelves, provision of human guides to bring about exact and expeditious contact between humans and books, and so on—has been described in detail elsewhere.¹

¹ Ranganathan, S. R., *Five Laws of Library Science*, 1931, Chapter I (Madras Library Association Publication Series, 2).

But the first law of archival science would never allow open access; it should not. For preservation is paramount in archives while open access does imply risk of loss and actual experience has invariably shown loss. Libraries of printed books can afford that loss. As use is paramount in them, they willingly face loss. In fact, every book that refuses to leave the shelves and settle on the hands of readers now and then, is a heart-break to the first law of library science and the library authorities of today want to avert such a pain to their first law even at the cost of a few of the books, which are after all mortals. But in the case of the first law of archival science, heart-break sets in at the sight of any record that leaves its allotted place in the shelves. The archival authorities of today want to avert such a pain to their first law and to ensure eternal life to each record by furnishing only copies to seekers. Seekers naturally protested against the lower order of authenticity which even an officially certified copy could have. Modern methods of cheap photographic reproduction of records has, now, eased the tension between the rigid first law of archival science and the severe demand of authenticity in historical research.

(To be concluded.)

LIBRARY OF THE INDIAN AGRICULTURAL RESEARCH INSTITUTE

K. K. GUHA ROY

Librarian, I.A.R.I. Library

THIS Library, which is the biggest of its kind in the East, is the proud possessor of more than one hundred thousand volumes of scientific literature embracing all branches of agriculture. The collections date as far back as 1665 A.D. and cover a period of nearly three centuries. English, French, German, Italian, Dutch and American publications figure among the older collections.

Since its inception in 1905 and until its transfer from Pusa (Bihar) to New Delhi in 1936, the library was housed in Phipps' Laboratory. Conditions there were good. The rooms were panelled in first class teakwood and the shelves made of the same material. The floors were covered by linoleum and protected from ground moisture. The situation of the library was such that direct sunlight could not fall on the books nor could heat or other elemental forces tell upon them. Acidic pollution resulting from industrial smoke was out of the question in that remote hamlet town. Although the range of temperature in that sub-tropical region varied between the two extremes of 40 degrees and 110 degrees Fahrenheit and the relative humidity used to be very high, these extreme conditions did not persist so as to cause serious damage to paper and records.

Nevertheless, signs of deterioration of paper, which are very slow to become obvious, were not altogether absent. These were ascribed to the chemicals used in the preparation of paper and also in the paste used for binding. No damage by insects or fungi was noticed. An insecticidal solution had been regularly applied to books, first on their receipt and again at intervals of five years. Naphthalene balls were also kept inside the cupboards which used always to be dusted and cleaned and the books aired. In doubtful cases fumigation with hydrocyanic acid gas had also been resorted to. During its thirty years' life at Pusa, only on one occasion was the entire library sprayed with cyanide dust as a precautionary measure. The number of dead grubs was negligible, because the damage to books was suspected to have just begun. No damage due to mildew had ever been

observed. Slovenly use of books by borrowers at home was responsible for damage as also were cockroaches, silverfish, etc., which abounded in residential buildings. However, damage had not been pronounced on this account.

But that climate and adverse storage conditions have deleterious effects on books and paper have been amply demonstrated during the last ten years of the library's existence in Delhi. The stack-room is open to the afternoon sun, the west dry wind, dust storms, etc., factors which reduce the strength of the paper to become brittle. During 1920-21 research was carried out by Sudborough and Mehta (*Journal of the Indian Institute of Science*, 3 : 119-226) on the perishing of paper in Indian libraries. They observed, 'In Indian libraries and Record Offices it is frequently found that the paper has become quite brittle, even books which have not been much used show the phenomenon, and in many cases the brittleness is so marked that one or two single folds of the paper cause it to break along the fold.' They further state 'that perishing is more common in India than in Europe or America is indicated by the fact that Mr. Chapman (Librarian, Imperial Library, Calcutta) in 1915 sent a list of eight volumes taken from Indian libraries and showing marked signs of perishing and requested the Keeper of the British Museum to examine copies of the same books in London. The result was that the London copies showed no distinct signs of perishing, although in one case there was discoloration and in another foxing.'

This led Mr. Chapman to request Prof. Sudborough of the Indian Institute of Science, Bangalore, through the Government of India to undertake research into the problems of storage of paper, books and documents. A systematic survey was undertaken and the findings were that in the Imperial Library at Calcutta out of 140 books examined 100 volumes seemed perished, which worked to a loss of 71 per cent. Comparative figures of loss in other localities were—Simla 9 per cent, Ootacamund 20 per cent, Madras 71 per cent, Bombay 66 per cent, and Meerut 63 per cent. According to the authors, 'it is quite clear from the above comparisons that climatic conditions in different parts of India play an important part in the perishing of paper and that the climate of hill stations such as Simla and Ootacamund is much more favourable to the preservation of paper for a number of years than the climate of Madras, Bombay or Calcutta. This does not mean that low grade papers can be kept

indefinitely in hill stations, but merely that the process of deterioration is much slower.'

Against this background, consequently, a survey was carried out to determine the extent of damage caused to paper which is stored in the stack-room of the library in closed steel shelves. Sets of old periodicals appear to be the most affected part of the collections. The following statement indicates the extent of loss:

Name of periodical	Number of volumes examined	Number of volumes perished	Number of volumes under way of perishing
Ann. Inst. Agron. Paris (1876-1900) ..	10	4	6
Phil. Trans. Roy. Soc. (1871-1900) ..	30	3	15
(1665-1870 no loss)			
J. Chem. Soc., London (1862-1900) ..	72	14	17
Annalen der Chemie, Berlin (1832-1900) ..	162	7	26
Agric. Ledger, Calcutta (1892-1912) ..	17	17	..
	291	45	64

This is the picture of a sample survey which shows that 15 per cent of the volumes examined have already been lost and 22 per cent are developing symptoms of deterioration. One advice which is very liberally given to library students in connection with their lessons on weeding is that as soon as a book becomes unusable or difficult to handle it should be discarded forthwith. But in the case of research libraries it is different, for even a small sheet of paper which contains one item of useful information cannot be discarded. On the contrary, it should be jealously preserved.

Discoloration is another feature which indicates that the process of deterioration has already started. This process is slow but is accelerated by adverse conditions of climate and storage. Industrial smoke, acidic pollution of atmosphere, dust, heat, light, moisture, bad design of library buildings, apart from insects and fungi, are factors which quicken the pace of destruction. The first two enemies of books are not present in Delhi, but the others play their part unchecked. Added to them are the steel shelvings closed and almost air-tight which prove in the long run an uneconomical investment if arrangements for the optimum conditions of humidity and temperature are not provided. Fifty per cent relative humidity and 70-80°F. temperature have been experimentally shown to be wholesome for

books and records. Air-conditioned rooms, adequate equipment for preservation and renovation of paper, and, above all, use of first grade paper for publication of important results of research which have a permanent value are the most essential requirements which will enable librarians and archivists to conserve the past. Air-conditioning of the stack-room of the library of the Indian Agricultural Research Institute is at present being contemplated.

BOOKWORMS¹

E. A. BACK

*Bureau of Entomology and Plant Quarantine, U.S. Department of
Agriculture*

WHEN one enters such thoroughly modern structures of stone, steel, and cement as the Congressional Library or the National Archives in Washington, D.C., or the Huntington Library in California, to mention only three repositories of documents embodying the best information available to the librarian, he is so overwhelmed by a sense of beauty and permanence that he finds it hard to believe the often repeated statement that insects have destroyed more books and papers than fire and water. Yet the concrete examples of book destruction by insects which have come to the attention of the Federal Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture during the past 15 years leaves little doubt as to the soundness of the belief that insects are in the front rank of book enemies. Persons living in northern climates see less of the ravages of book insects, but no lover of books located in the Tropics need have his attention called to their importance.

Insect attack upon books and papers increases as the climate becomes warmer and more humid. No part of a country such as the United States appears entirely free from library pests. Some of the most serious infestations have been found in little-used libraries in New York City, New England, and the northern tier of States, although the number of such infestations is exceeded by far by those that occur along the Gulf coast northward to the Mason-Dixon line. There is no well-informed librarian anywhere who is not constantly on the watch to detect infestations by insects, either in books already on the library shelves, or in books newly acquired from outside sources.

The importance of insects as destroyers of books has been recognized for years. Many of the earliest manuscripts have been destroyed by insects. Among the very early writers, Aristotle, writing in Athens about 335 B.C., mentions creatures in books resembling grubs found in garments. Horace (65-8 B.C.) expressed the fear that his writings would eventually become 'food for vandal moths'. Ovid (43 B.C.-A.D. 18), while in exile, likens the 'constant gnawing of sorrow' at his heart to the gnawing of the bookworm 'as the book when laid away is nibbled by the worm's teeth'. Moses, addressing Joshua, gave instructions regarding the preservation of the books of the Pentateuch

¹ Photographs taken under supervision of author by Marcel L. F. Foubert, Division of Illustrations, Office of Information, U.S. Department of Agriculture, unless otherwise credited.

by anointing them with cedar oil and storing them in earthen vessels. Philippus of Thessalonica early in the first century A.D. compared satirically the grammarians of that day to bookworms, thus first voicing so far as is known a comparison now used so often that instinctively one thinks of a very studious person as a 'bookworm'. Ausonius, who lived in the fourth century A.D., scoffs at the tutor who prefers to bury himself in 'worm-eaten and outlandish scrolls' rather than give himself to more familiar pursuits and refers to a choice between preserving writings with cedar oil or allowing them to perish as food for worms. Even Pliny the Elder stated that dust is productive of worms in wools and cloths and 'these will breed in paper also', thus giving rise to a theory concerning the generation of worms still believed today by not a few persons. All evidence indicates that insects have always been foes of the written and printed word.

The seriousness of the bookworm problem led the Royal Society of Göttingen in 1774 and the International Library Congress in 1903 to offer prizes for a satisfactory solution. William Blades in 1888 wrote *The Enemies of Books* in which he has a chapter entitled 'The Bookworm'. But it was C. V. Houlbert who made the most serious attempt to discuss this group of insects in his book entitled *Les Insectes Ennemis des Livres*, published in 1903, doubtless inspired by the prize offered by the International Library Congress held that year in Paris. But when one reviews the long list of articles dealing with book insects, 'in fact or fancy', as set forth in the truly fine bibliography of 493 items prepared by Ralph H. Carruthers and Harry B. Weiss and published in 1936 in the fortieth volume of the *Bulletin of the New York Public Library*, there comes the conviction that book insects are a menace not confined to the past and that their destructive work still continues in libraries of the unwary.

Although bookworms have figured much in prose and poetry, the informed person reading the literature about them must confess that, in the light of modern entomological knowledge, most of the earlier writers had more knowledge of books than of the insects attacking the books. The best works are those that are confined to a discussion of specific instances of destruction by authoritatively identified insects. There has been a tendency at times to record as pests of books insects that harm books only under the most accidental of conditions. This may have resulted from the thorough disregard for the preservation of books and manuscripts known to exist quite generally even as late as a hundred years ago, which sometimes resulted in the storing of books in unsanitary surroundings. It is to be regretted that even today the records of many colonial probate courts and the vital statistics of many small towns and countries, to say nothing of State records in some capital buildings, are stored in basement rooms so poorly ventilated and insulated against moisture that instances of their injury, and often of their utter destruction, by insects are by no

means rare. The late George S. Godard, for years librarian of the Connecticut State Library, preached constantly to the town clerks and judges probate the necessity of exercising great care to house public records where insects, fire, and water could not harm them, and did more than any other one person, in all probability, to bring the valuable town and country records of Connecticut together in the well-guarded State library. One has only to search for early records in many parts of the United States to appreciate how many books of records of historical value have already been destroyed by insects because of improper housing.

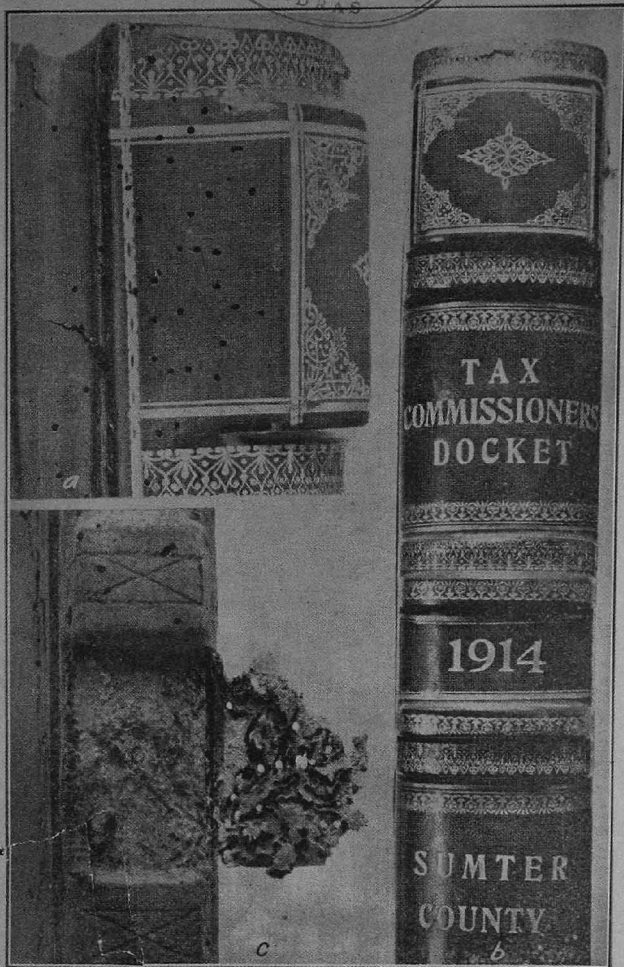
Blades, the Englishman, already referred to as writing in England in 1888, states: 'Our cousins in the United States, so fortunate in many things, seem very fortunate in this—their books are not attacked by the "worm"—at any rate, American writers say so.' He even calls attention to the statement in Ringway's *Encyclopædia of Printing* that in Philadelphia the slightest ravages of bookworms 'are looked upon as both curious and rare'. Even if this were true in that day, such a state of affairs has long since passed. In the colonial days of this country books were not commonly possessed by the average household in the numbers possible today. In fact, books in many homes were limited to the Bible, church hymnals, American printed histories, and a few school books. These were given such hard usage that bookworms made no headway in them, and the books were so valued that they became a part of many an itemized inventory of a man's estate and were mentioned in his will.

Early writers have done much to instill into the public thought the idea of mystery and elusiveness surrounding bookworms. Often the discovery of a single living grub (pl. 12) has been thought worthy of record. Too few writers have associated the bookworms with very commonplace, cosmopolitan pests of articles of commerce and of stored or refuse vegetable matter and animal matter or with the wood of buildings. The cigarette beetle, responsible for thousands of dollars worth of damage annually to raw and manufactured tobaccos and upholstered furniture, and the drugstore beetle, which, with the cigarette beetle, is the ever present foe of farinaceous food products—seeds, grains, dried vegetable, drug supplies, condiments, and many home furnishings of vegetable origin—are so abundant numerically that at times they swarm from warehouses by the millions and so fill the air that the flying beetles are carried considerable distances by the wind and on the clothing and vehicles of travellers. Others, like termites, cockroaches, and silverfish are such cosmopolitan and constantly injurious pests of the home that they are accepted the world over more as common household pests than as book destroyers.

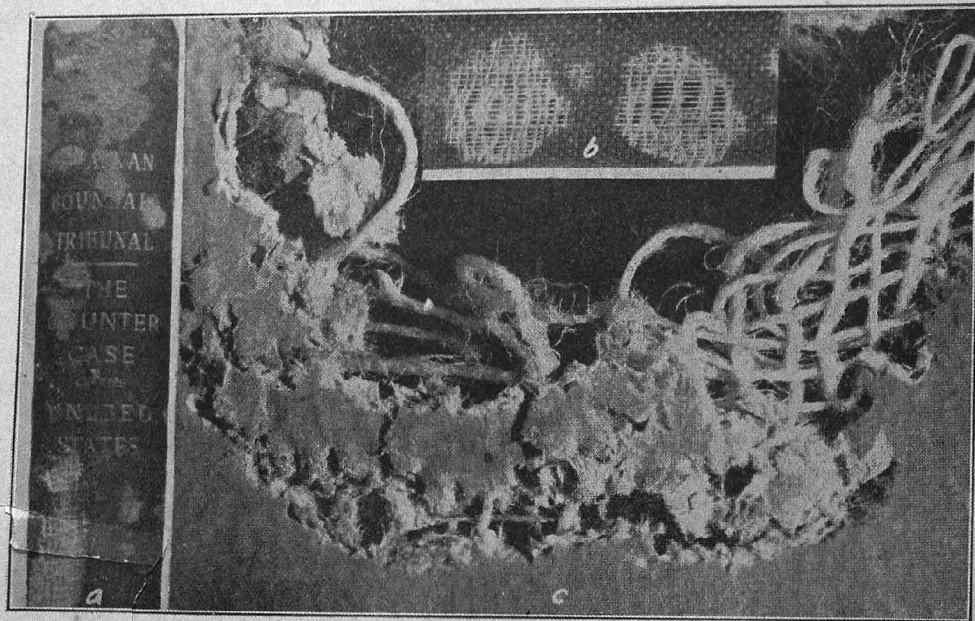
It is a source of wonder to many that books and old manuscripts can be so badly damaged by insects and yet, when examined, reveal not a living bookworm. So often nothing is readily visible but the

LIBRARY
7-FEB 1943
MADRAS

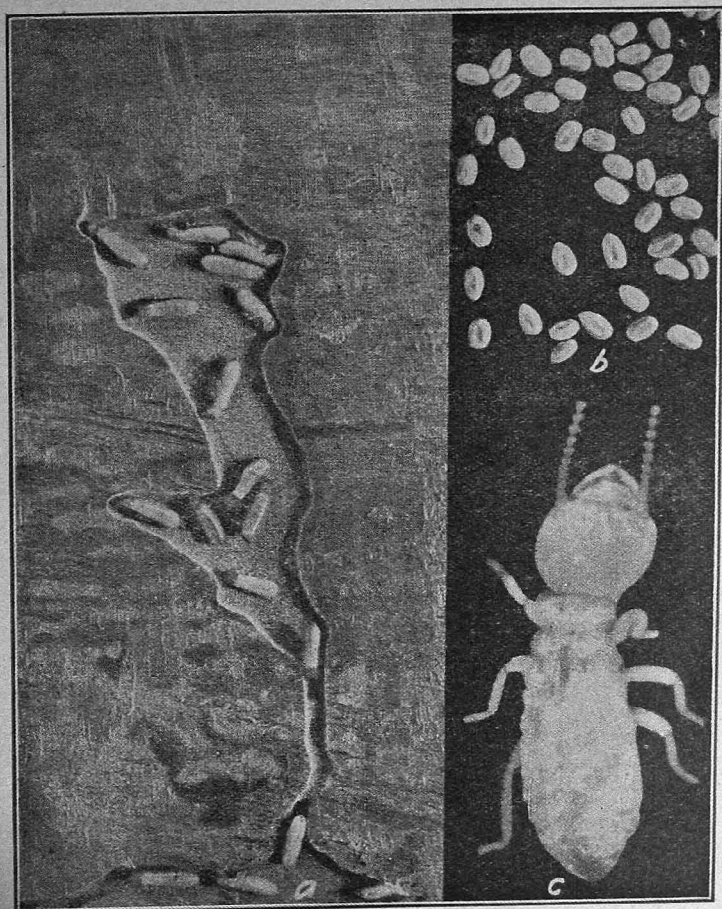
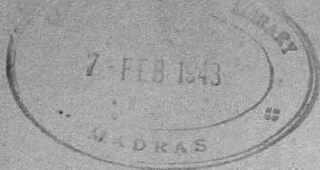
PLATE I



TAX BOOKS DAMAGED BY THE DRUGSTORE BEETLE (*STEGOBIMUM PANICEUM*).
a and *b*, Two views of excellently bound book, showing exit holes in leather made by escaping beetles; *c*, portion of back of an older book removed to show typical damage to cover. (Figures *a* and *c* slightly reduced in size.)



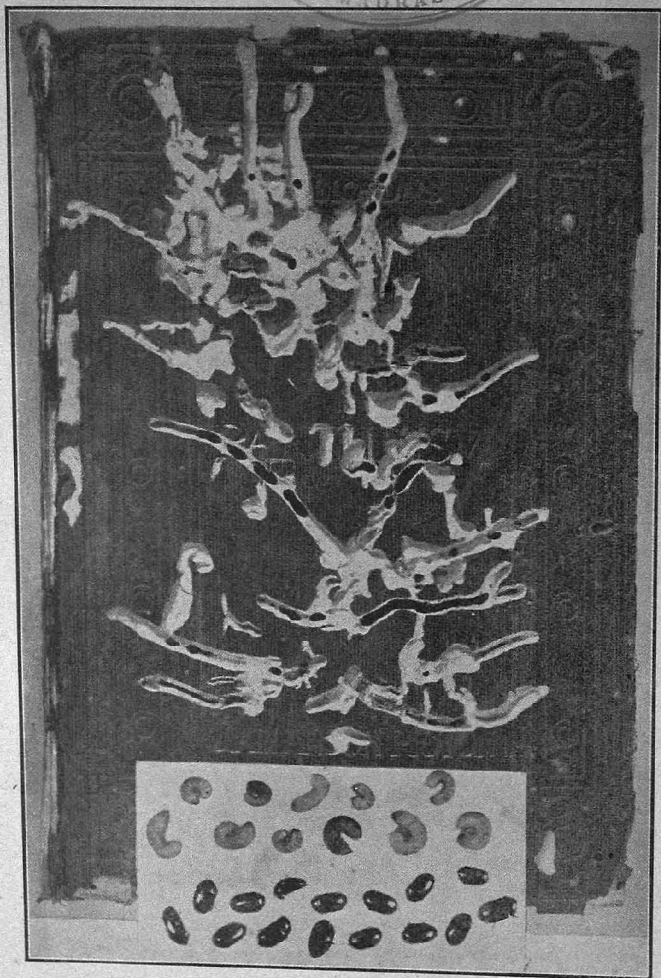
DAMAGE TO CLOTH-BOUND BOOKS BY THE AMERICAN COCKROACH (*PERIPLANETA AMERICANA*).
a, Back of book injured (natural size); *b*, eaten spots enlarged to show the removal of the sizing by the cockroaches from the cloth; *c*, damaged spot of a cover greatly enlarged to show not only removal of sizing, but also destruction of cloth foundation.



Photograph by J. G. Pratt.

TERMITES.

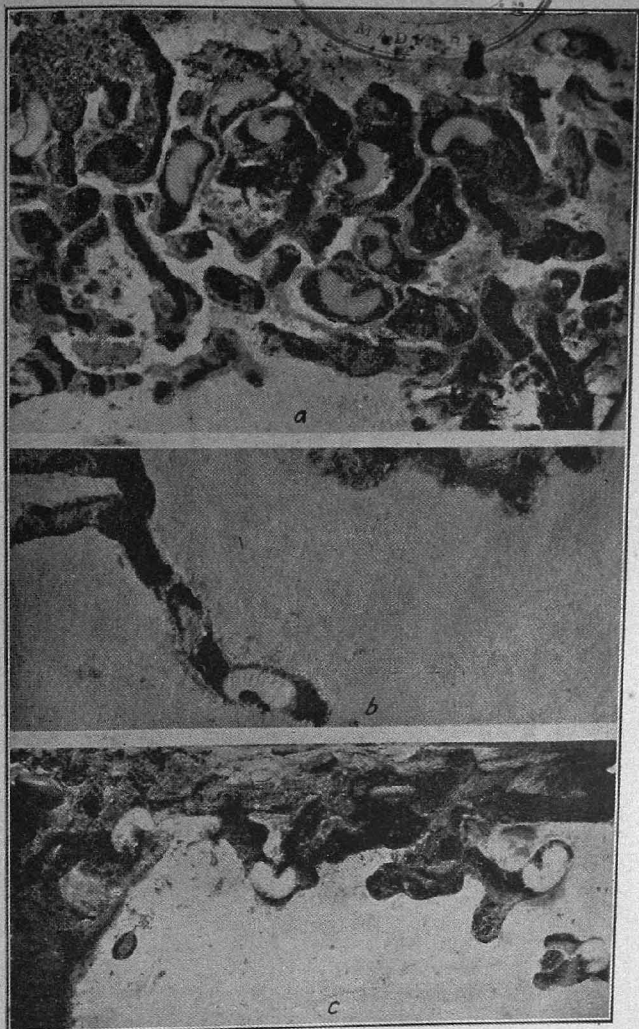
- a*, Dry-wood termites in a recently made cavity in wooden bookcase ;
b, excretal pellets of dry-wood termites ; *c*, a young termite.



BOOK, NATURAL SIZE, SHOWING THE DESTRUCTIVE BURROWING OF THE
HAWAIIAN 'CATORAMA' BOOKWORM.
*Inset: Larvae and adults of *Catorama bibliotheacarum* ($\times 2$).*

7-FEB 1943

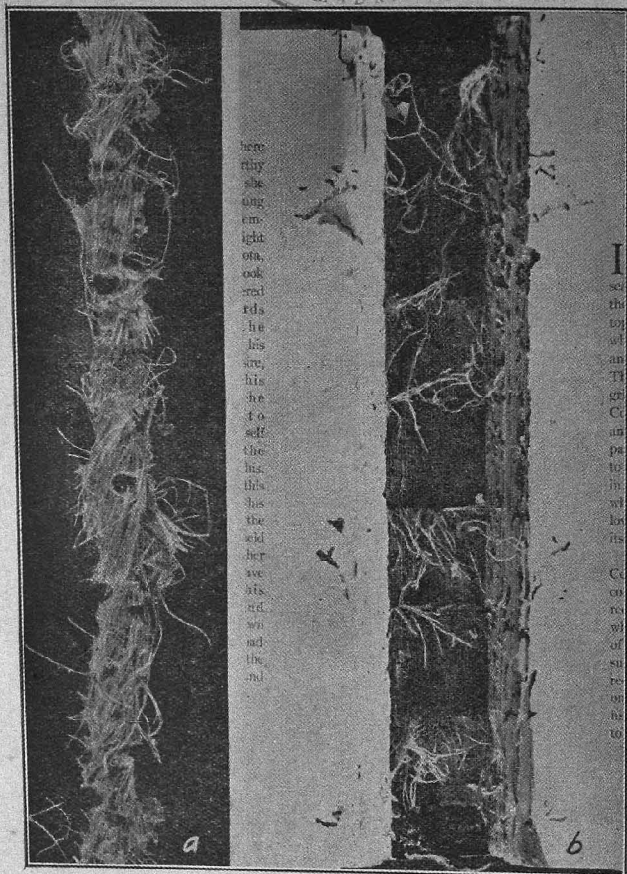
PLATE 5



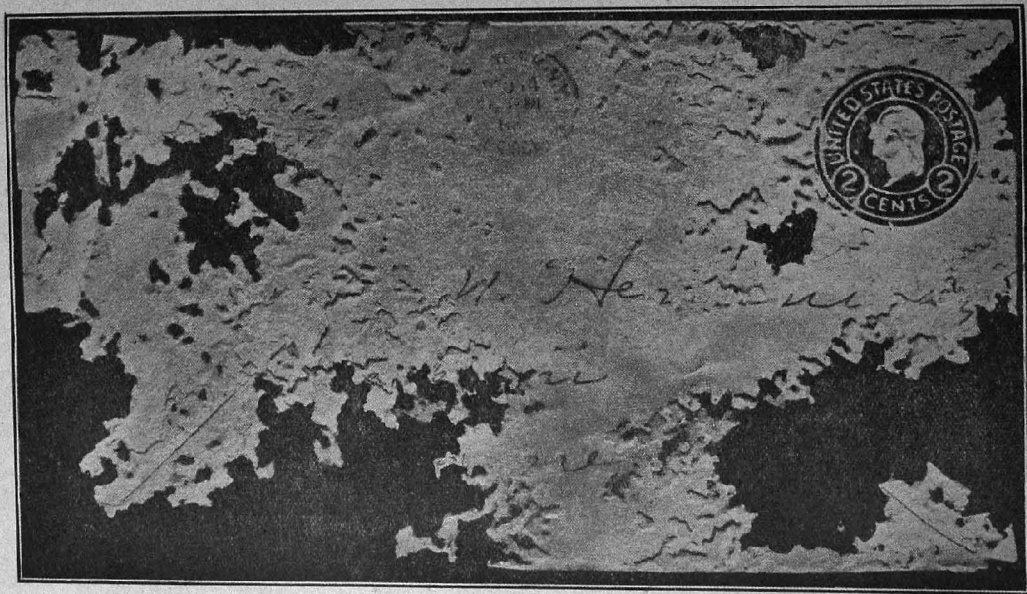
a, Pages of book ruined by feeding of grubs of *Neogastrallus librinocens*. Eight larvae are shown in cells in which they are about to transform to the adult beetle stage. b, A single feeding grub of *Gastrallus laevigatus* in the burrow it has made; c, four grubs and four adults of the drugstore beetle, *Stegobium panicum*.



PLATE 6



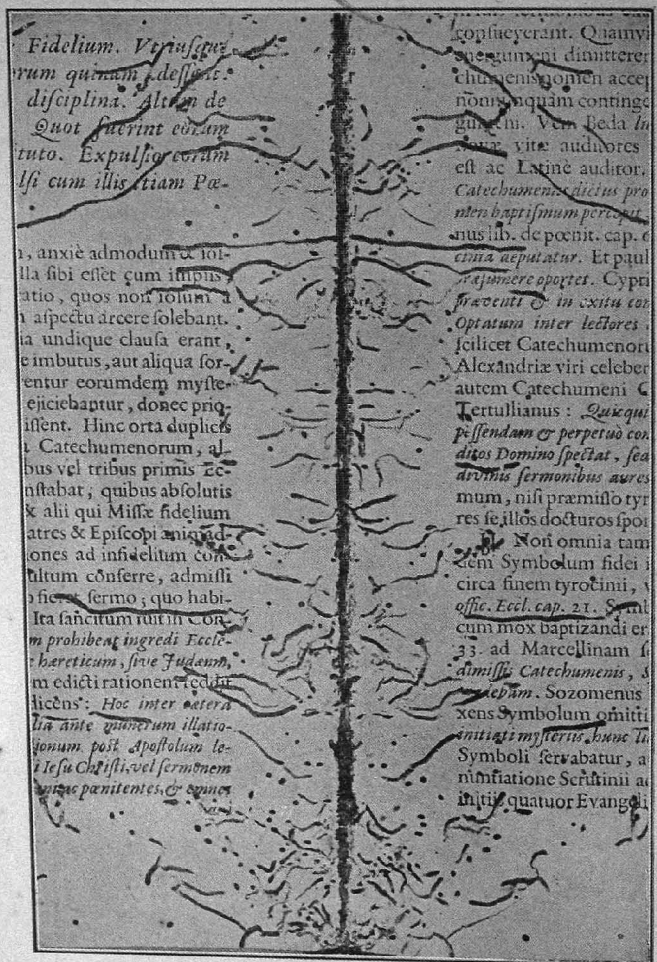
BOOKWORM DESTRUCTION OF THREADS USED TO BIND PAGES OF BOOK TOGETHER, CAUSING THE PAGES THUS FREED TO FALL OUT.
a Left, heavy jute thread from sack damaged by larvae of *Lasioderma serricorne*, indicating ease with which threads are cut and ruined by bookworm larvae as they burrow in books.



ENVELOPE EATEN BY THE SILVERFISH 'LEPISMA SACCHARINA'.

CONNEMARA PUBLIC LIBRARY
7-FEB 1873

PLATE 8



*Fidelium. Verusque
rum quoniam deservit
disciplina. Aliter de
Quot fuerint eorum
tuto. Expulsi eorum
si cum illis tiam Pa-*

1, anxie admodum & tol-
lla sibi esset cum impus
atio, quos non solum a
aspectu arcere solebant.
ia undique clausa erant,
e imbutus, aut aliqua for-
entur eorumdem myste-
ejiciebatur, donec prio-
issent. Hinc orta duplex
i Catechumenorum, al-
bus vel tribus primis Ec-
nstabat, quibus absolutis
& alii qui Missa fidelium
atres & Episcopi ania ad-
ones ad infidelium con-
ultum conferre, admissi
ficet sermo; quo habi-
Ita sanctum ruit in Con-
m prohibens ingredi Ecclie
hereticum, sive Judam,
m edicti rationem reddi-
licens: Hoc inter cetera
lia ante numerum illatio-
ionum post apostolum lo-
i Iesu Christi, vel sermonem
antur panitentes, & equi-

copficerant. Quamvi
sue quoniam diuiterter
chumenis non accer-
nonis, quam continge-
gunt. Veri Beda in
sua vite auditoris
est ac Latine auditor.
Catechumenis, sicut pro-
nien baptismum percipit
nus lib. de poenit. cap. 6
cuna aeputatur. Et paul-
majunere oportet. Cypri-
fractenti & in exitu con-
Optatum inter lectores.
scilicet Catechumenorum
Alexandria viri celebrer
autem Catechumeni C
Tertullianus: Quicquid
pessendam & perpetuo con-
digos Domino spectat, sea
arduis sermonibus aures
mum, nisi pramisso tyr-
res se illos docturos spo-
Non omnia tam
dem Symbolum fidei i
circa finem tyrotinii,
offie. Eccl. cap. 21. Siml
cum mox baptizandi er-
33 ad Marcellinam s
dimissis Catechumenis, s
receptam. Sozomenus
xens Symbolum omitti
antiqui mysterii, sicut Th
Symboli servabatur, a
nificatione Scrutinii ac
in titi quatuor Evangelii

OPENED BOOK, INDICATING DESTRUCTIVE FEEDING BY 'NEOGASTRALLUS LIBRINOCENS'.

Pages thus injured can be turned only with great difficulty because of the glue-like secretion with which the bookworms line some of their cavities.

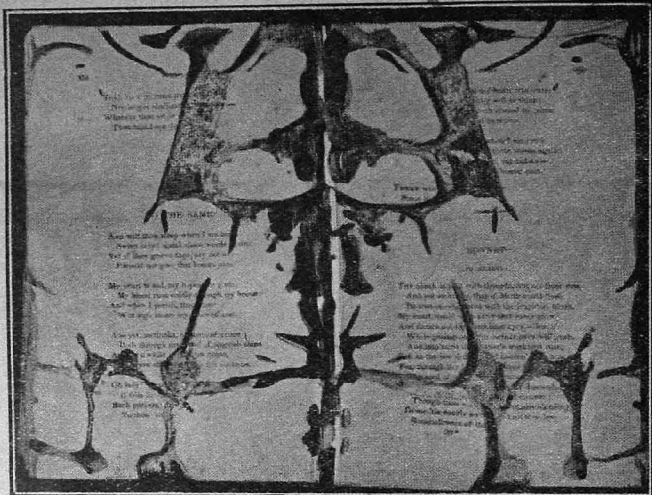
LIBRARY
7 FEB 1843
S

PLATE 9

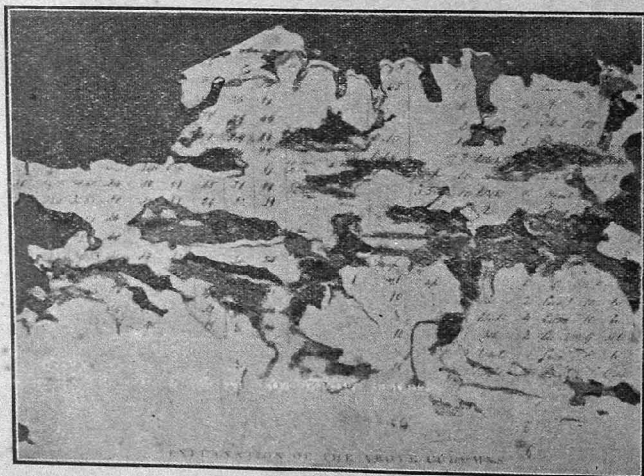


TWO BOOKS SHOWING EXTERIOR EVIDENCE OF ATTACK BY SUBTERRANEAN TERMITES.

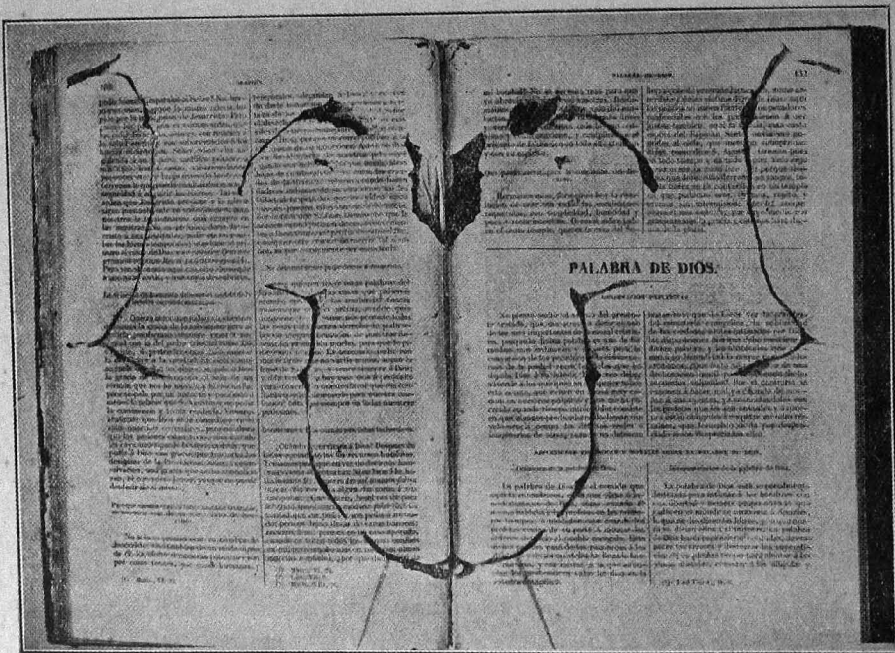
7-FEB 1913



BOOK OPENED TO SHOW HAVOC CAUSED BY SUBTERRANEAN TERMITES.
($\frac{1}{2}$ natural size)

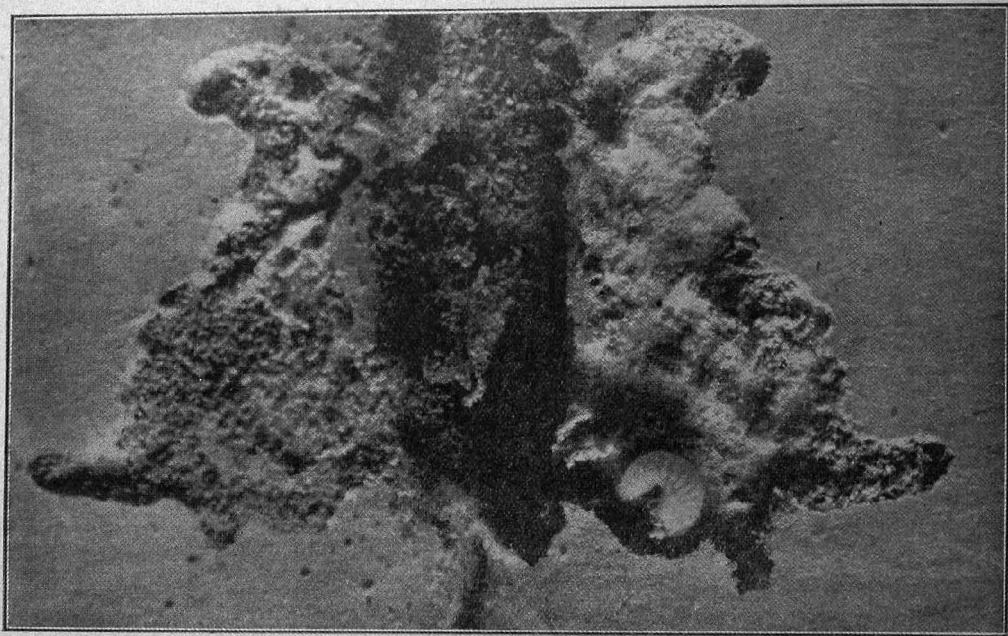


INDICATING HOW THOROUGHLY SUBTERRANEAN TERMITES CAN DESTROY
RECORDS NOT PROPERLY GUARDED.
Note thin deposit of mud lining burrows in this and above illustration.
($\frac{1}{2}$ natural size)



BOOK OPENED TO SHOW THE EVER VARIED FEEDING CHAMBERS OF DRY-WOOD TERMITES.



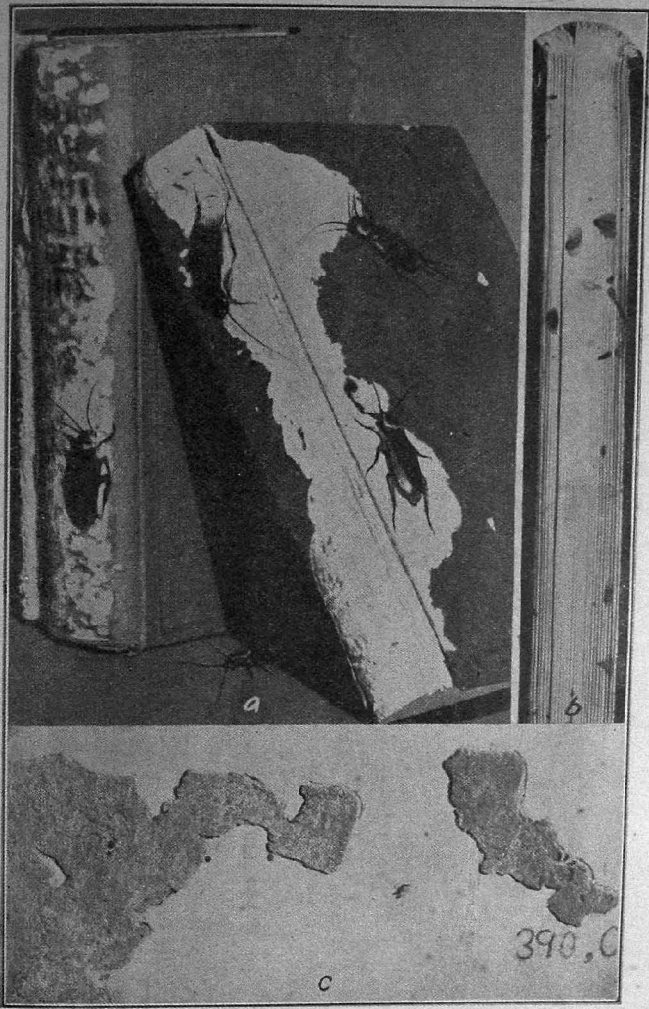


A BOOK OPENED TO EXPOSE A SINGLE WELL-GROWN BOOKWORM GRUB '*LASIODERMA SERRICORNE*'. Note havoc it has caused along the stitching of the book, and the pellets of excrement or 'dust'. ($\times 6\frac{1}{2}$)

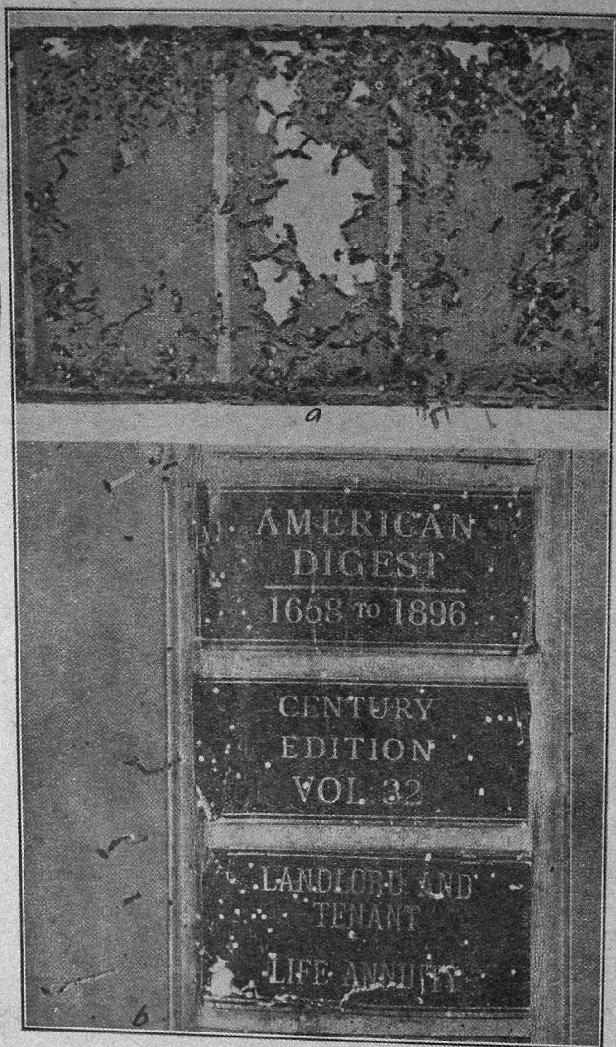


7-FEB 1943
MADRAS

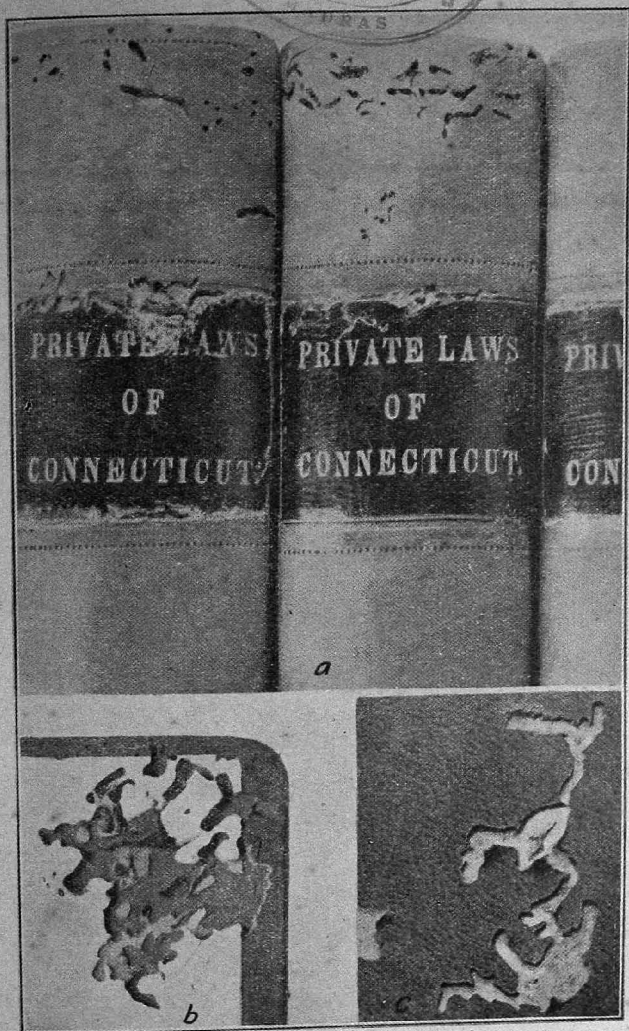
PLATE 13



DAMAGE DONE TO BOOKS BY THE AMERICAN COCKROACH 'PERIPLANETA AMERICANA'.
a, Showing the cloth binding eaten from the backs of two books; *b*, inklike stains on edges of pages; *c*, label of book file damaged by cockroaches.

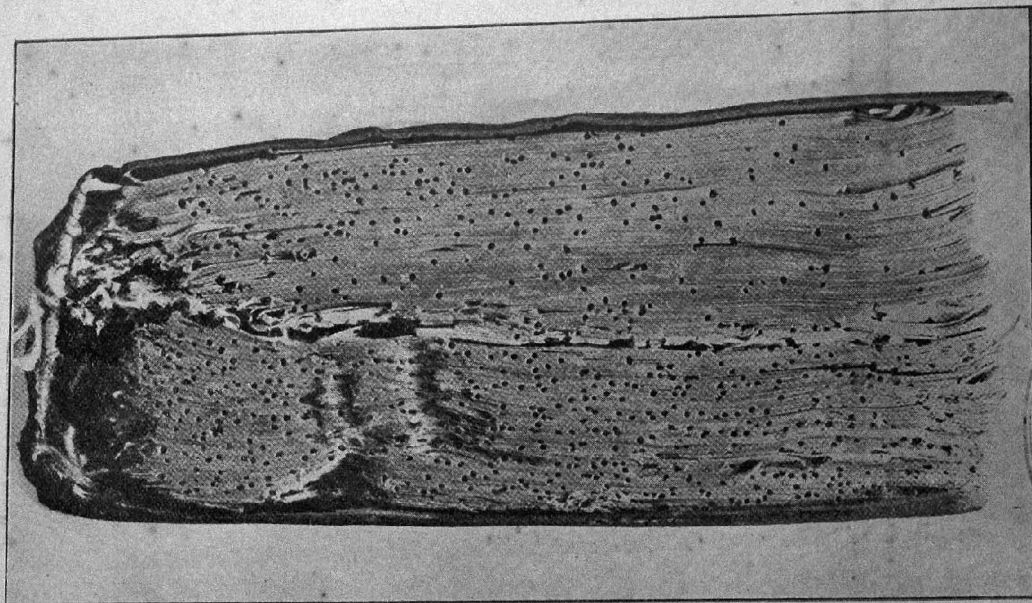


LEATHER-BOUND LAW BOOK DAMAGED BY THE BOOKWORM
'LASIODERMA SERRICORNE'.
a, Showing burrows of grubs beneath the labels; *b*, outward appearance of labels showing the small round holes permitting escape of adult beetles from the burrows shown in *a*.



SHEEPSKIN-BOUND STATE RECORDS.

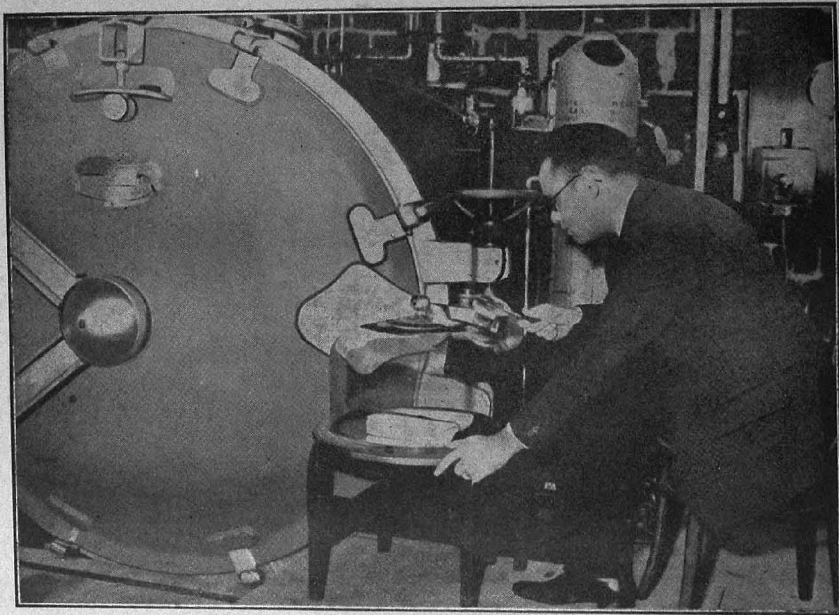
- a*, External appearance of books damaged by the drugstore beetle, *Stegobium panicum*; *b*, burrows of the grubs inside the cover; *c*, burrows in outside of cover where two books are closely appressed.



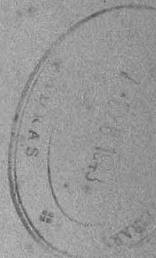
7 FEB 1913
MADRAS

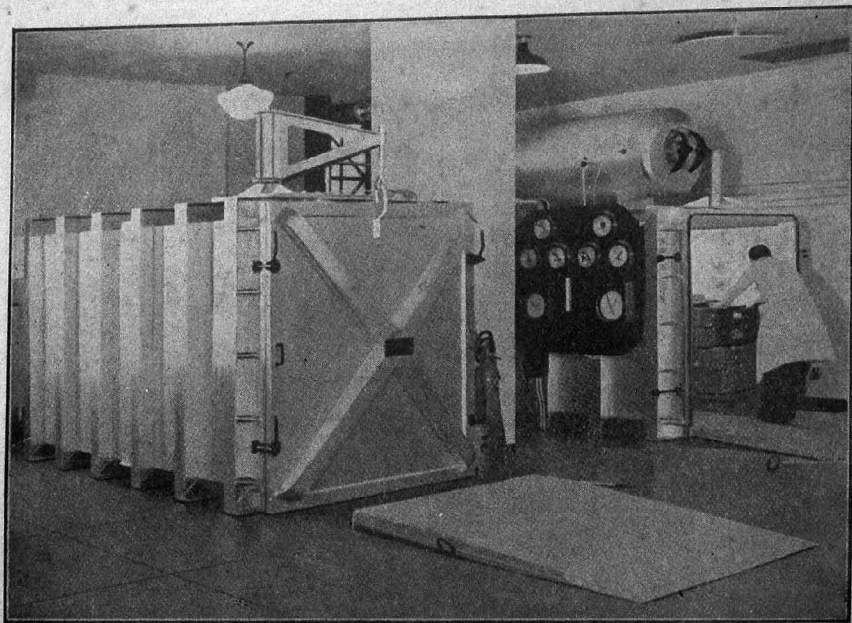
END VIEW OF BOOK INFESTED BADLY WITH 'NEOGASTRALLUS LIBRINOCENS'.

The pages of this book were so badly honeycombed and cemented together by bookworm grubs that they cannot be turned.
The book had to be torn open through the centre by main strength.



VIEW OF CYLINDRICAL STEEL VACUUM FUMIGATOR INSTALLED IN THE HUNTINGTON LIBRARY.
At right, T. M. Liams reading the effect of a fumigant upon a bookworm in book shown under glass bell jar.





TWO MODERN RECTANGULAR FUMIGATORS INSTALLED BY THE NATIONAL ARCHIVES (USA)
FOR THE TREATMENT OF ALL INCOMING MATERIAL TO DESTROY INSECTS.



havoc left behind by the feeding grubs. More old books will be so found than with active feeding bookworms. There is no mystery, however, in this state of affairs. Nature has provided enemies of bookworms in the form of tiny parasites never seen by the untrained eye. They ferret out the grubs of bookworms and kill them off, and after they have done their work they too pass on to other fields of activity and along come the scavengers of nature, the dermestids such as the cabinet beetle (*Trogoderma*) or the small larvæ of the carpet beetles (*Attagenus* and *Anthrenus*), known better to us all as destroyers of carpets and clothing, which devour most of the animal tissues left in the book except the chitinous jaws of the bookworm. In many a book, completely free of bookworms but badly burrowed by them, will be found the remains of cocoons of parasites to indicate the battle for supremacy that occurred perhaps only a year ago, perhaps 50 or 100 years ago according to the age of the book, date of original infestation, and condition of subsequent storage. Yet, each book, unless too vigorously tampered with by man, carries such evidence that the kind of insect causing the damage can be determined, if not by the naked eye, then surely with the aid of the microscope.

Untreated books often carry bookworms from country to country. Several such instances are interesting to record, for they indicate how careful persons should be in purchasing old books. In 1937 a letter received from St. Leo Abbey, St. Leo, Fla., stated that many books in its library were being ruined by insects. The insect causing the damage¹ proved to be new to science, and a visit of investigation revealed that the injured books had been presented to the Abbey from the estate of Bishop Moore of St. Augustine, Fla., who died in 1901. This fact, supplemented by the statement by the Rt. Rev. Abbot Francis Sadlier, head of the institution at St. Leo, that books in the rectory of the cathedral at St. Augustine were infested, led the writer to visit St. Augustine. With the co-operation of the Rev. I. Nunan and the Rev. John H. O'Keefe, the books of the rectory were examined and found in some instances to be badly infested. Later, the library of St. Joseph's Academy, St. Augustine, was found to be very generally infested. It was also learned that the early cathedral records, including the vital statistics of early inhabitants, had been so damaged by the insects that they were reconditioned during 1937 by the National Archives to prevent their utter destruction. When it was found that books in the public libraries of other Florida cities were not infested with the same insect, everything pointed to the collections of the late Bishop Moore and the cathedral records as the original sources of the infestation at St. Leo and St. Augustine.

Upon further inquiry, it was learned from Father Nunan that Bishop Moore's aptitude for historic research had led him to discover

¹ *Neogastrallus librinocens*.

that all the records of the cathedral, including the vital statistics and church furnishings, had been loaded into the ship *Our Lady of Light*, under the command of Don Marcos Capitillo, and carried to Havana, where they arrived 6 February 1764. This effort of the Bishop of Havana, in charge of the Catholic diocese then including the West Indies, Florida, and Louisiana, to protect the possessions of the St. Augustine Mission from destruction by the English when they took over the rule of Florida, resulted in the depositing of the records, in the form of handwritten, bound volumes, in the archives, of what is now called Columbus Cathedral in Havana. There they remained until Bishop Moore, discovering them and recognizing their great historical importance to the State of Florida, negotiated their return to the archives of the St. Augustine Cathedral in the year 1913. As no other books in Florida had been found infested by this destructive bookworm except those originating in the St. Augustine Cathedral or in the house of Bishop Moore, it was suspected that when the records were returned from Cuba, they carried an infestation which later was carried in gifts of books to the Catholic institutions above mentioned. A visit to Havana in 1938 proved the pest to be widely distributed in many books stalls, in the National Library in the Capital Building, and in the Columbus Cathedral. In the closely guarded archives of the Columbus Cathedral itself some of the unused volumes of old records, some dating back to the sixteenth century, were so badly riddled that the pages could not be turned. There seems little doubt but that this bookworm was introduced into Florida at St. Augustine with the return of the cathedral records after storage in the Columbus Cathedral, Havana, from 1764 to 1913, and that from St. Augustine, infestations were carried to St. Leo, Fla. In 1939 the same insect was found to be causing great destruction in the unused books of the library of St. Charles College at Grand Coteau, La. This infestation undoubtedly owes its origin to infested books taken there from Havana many years ago.

It is said that there is no finer collection of books and manuscripts dealing with Jewish literature and history than that in the library of the Jewish Theological Seminary in New York City. Many of the ancient volumes have come to this country from those portions of Europe known to be overrun with bookworms. When these books were moved to the new and very beautiful and modern seminary library building in 1933, many were found to be carrying active infestations which had their origin across the Atlantic. A sojourn in this country had in no way impaired their capacity for injury.

While engaged in investigational work in Honolulu, the writer made the acquaintance of the late Dr. William T. Brigham, for many years director of the Bernice Pauahi Bishop Museum, and was shown his valuable collection of books in which he took great pride. After Dr. Brigham's death, these books were boxed and stored in Honolulu

for several years until, in 1927, they were sold to a firm of booksellers in Boston. Upon arrival in Boston, hardly a book of the estimated 8,000 volumes, valued at over \$25,000, was found free from the ravages of Catorama bookworms. One damaged book is shown natural size in plate 4. It is hard to believe how quickly bookworms can ruin books in certain warm and humid climates and how easily they can be shipped to distant lands. A shipment of books, similarly infested and injured, was received late in 1939 by the Congressional Library from Rio de Janeiro, Brazil.

Not all insects that infest books are true bookworms. Book insects may be divided into three groups: (1) the true bookworms, (2) termites, and (3) surface feeders.

The true bookworms are all tiny creatures (pls. 4, 5). In no stage of their life do they exceed, usually, one-tenth or one-eighth of an inch in length. The adults, almost never seen without a close search, are brownish or blackish beetles. The adult beetles are inconspicuous and are seldom active in the bright light of midday. They possess certain adornments which make it possible to distinguish the species, once the beetles are captured and placed beneath the microscope. In like manner, the white grubs (pls. 4, 5, 12) or immature forms look alike to the average person. When disturbed by the turning of the pages through which they have been building their tunnels, they curl into tight balls and roll out of the book, or roll just enough from their tunnels to be crushed when the book is closed. The grubs hatch from eggs laid by the parent beetles and at once begin burrowing into the covers, seemingly preferring covers in which there is considerable glue, paste, or casein. They frequently centre their attack along the backs or hinges of the book covers, cutting the threads which bind the pages together, thus causing the pages to fall apart (pl. 6). From these original points of attack the grubs, as they get more mature and voracious, extend their tunnels through covers and pages, according to the habit of the particular species, and so line their tunnels and pupal chambers with a gluelike secretion that badly affected books may literally become solid blocks of paper, to be opened only by main strength, and then not without ripping and rending the pages into worthlessness. Even a page as moderately damaged as that shown in plate 8 can be separated from the next page only with care. Some books (pl. 6) must be soaked in clear gasoline before any further attempt is made to recondition their pages.

Fortunately, the bookworms most commonly attacking sheepskin and cloth-bound books in law libraries and other collections throughout the United States confine their ravages to the leather and the cardboard of the cover (pl. 15) and seldom burrow into more than a few of the pages closest to the cover. When a number of the grubs are burrowing in leather-bound books left for months without being removed from the shelving, they will push out, from the holes they make in the

leather, chewed particles which fall and lie in small heaps on the shelving between the exposed book ends. The excrement of book-worm grubs gathers in their tunnels and between the pages as a fine dust that may be as varied in its colour as the differences in the type of paper or the printing ruined by their feeding. From badly damaged books this powder or dust will sift out when the book is shaken over paper and can sometimes be collected by the quart. In plate 12 is shown the well-grown white grub of a typical bookworm surrounded by the dust it has formed as it has eaten out a cavity along the edges of the pages where these are sewed together. All real destruction is caused by the dust-making grubs. The adult beetles which mature close beneath the cover or the edge of the pages escape from the book by eating small round holes as shown in plates, 1, 14, 16. The adults must reach the exterior to mate, and they lay their eggs about the covers and edges of the pages.

The insects known as surface feeders are the common household pests—cockroaches, silverfish, and psocids or book-lice. Although psocids are very frequently seen running over books in some libraries and in many homes and have been called lice because they are whitish, tiny creatures, hardly as large as the head of an ordinary pin, their importance as book pests has been exaggerated. They are frail creatures that today are considered incapable of causing physical injury to book covers. Since they do not bite people, carry disease, or harm books, they are objectionable only in the annoyance they may cause nervous persons who do not know that they are harmless. Warmth and dampness favour their increase.

Cockroaches and silverfish are world-wide in their distribution. They can seriously deface book covers but rarely do more, even when most abundant. They do not eat into the pages of books: they eat the sizing out of book covers. If these are of paper, the insects may actually devour the paper itself as indicated in plate 7, where an envelope is shown ruined by silverfish. But usually both silverfish and cockroaches confine their attack to removing the sizing from cloth bindings as indicated in plate 2 or to eating off labels pasted onto books or files (pl. 13, c). The large American cockroaches may become very destructive in closed library spaces and may actually eat off the backs of cloth-bound books (pl. 13, a). Cockroaches emit an inklike liquid which further defaces books (pl. 13, b). No one can sympathize with the librarian in northern climates who permits cockroaches and silverfish to deface books, for the presence of these insects in numbers is the result of neglect for which there is no excuse. But in tropical areas, or even in the Gulf coast States, where cockroaches and silverfish are abundant everywhere outdoors as well as indoors, the protection of books from defacement is a continuing battle that is won only by eternal watchfulness and application of remedial measures.

Termites have ruined more books than any other group of book insects. There are two kinds, the subterranean and the dry-wood termites, which, however, look very much alike (pl. 3, *a*, *c*). Because the worker forms, which cause injury, are creamy white in colour, they are frequently called 'white ants', although they are very distinct from true ants, which do not harm books. Termites are never seen running about over books and furniture unless their feeding chambers have been broken open. The subterranean forms are so called because they must maintain contact with the moisture in the soil beneath the building in which they are causing destruction. In modern libraries built with the intention of 'building termites out' and equipped with metal shelving, the subterranean termites cause no harm. It is true that cracks in basement floors and side walls may offer entry to subterranean termites even into buildings thought to be termite-proof, but it requires little inspection to guard against such attack. Usually, subterranean termite destruction takes place in libraries in wooden buildings with books stored on wooden shelving. In private homes, or in public institutions that store valuable old records in basement rooms, or even on first-story floors, termites may attack with a suddenness that is astonishing. Their natural food is wood, which is cellulose, but the pages of many books are also cellulose. Private collections of books left packed in wooden boxes over wooden basement floors infested with termites have been ruined during a four-months' storage period. Types of injury caused by subterranean termites are indicated in plates 9 and 10. No two books will show the same pattern of destruction, but subterranean termite injury can be identified by the thin deposit of mud with which the termites line the cavities eaten out in books. This mud is formed from earth particles carried from the soil beneath the building in which the damage has occurred and is used as a plaster to air-condition the termite home.

Dry-wood termites require no contact with the soil and may be destructive wherever they occur. Fortunately, instead of being found in most parts of the United States as are the subterranean termites, they are more tropical forms and are found mainly in tropical areas, being troublesome in the United States from Charleston, S.C., southward. In southern Florida, Cuba, and parts of California, and in Hawaii and the Philippine Islands, they are destructive. They do not line with mud the cavities they eat in books, but can be identified at once by the peculiar appressed whitish or tan pellets of excrement which will flow in a stream from a book as it is opened (pl. 3, *b*). The cavities that they eat into books are of endless variation as to size and contour (pl. 11).

Although more instances of injury by insects to books have been recorded during the past few years in private homes, the ravages of book insects have been greatly lessened in large public and private institutions, where much attention is being given to perfecting methods

designed to eliminate insects. Subterranean termites have been eliminated from modern termite-proofed buildings using steel shelving. Modern construction and care in selecting shelving without open hollow spaces that can be used as hiding places for cockroaches and silverfish make possible the complete subjection of these defacers of books in most parts of the country. The National Archives has installed modern vacuum fumigation vaults in which every lot of newly acquired material is fumigated for the destruction of insects before it is allowed to be unpacked. These steel vaults, two in number, are shown in plate 18. Each vault is $4\frac{1}{2}$ by $5\frac{1}{2}$ by 11 feet. As told by Arthur E. Kimberly, Chief of the Archives' Division of Repair and Preservation:

The records are placed in a vault in their original containers and the vault is evacuated until a vacuum of approximately 29.9 in. of mercury is obtained. A mixture of ethylene oxide and carbon dioxide is then released into the chamber until the vacuum falls to 21 in. of mercury. The gas is then agitated for 15 minutes by pumping it out at the top and in at the sides of the chamber. After the records have been exposed for a total of 3 hours, the chamber is re-evacuated to 29.8 in. of mercury, the vacuum is broken with air, and the fumigated materials are removed.

This method was developed for destroying insects in agricultural products by the experts of the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture. It was first applied to the fumigation of books in a library by Thomas M. Iiams, who has charge of the preservation of rare books and manuscripts in the Huntington Library. The cylindrical vacuum fumigator installed in 1931 at that library is shown in plate 17. Although vacuum fumigators are expensive and may represent an outlay greater than is practicable for smaller institutions, all libraries and book lovers can arrange to treat effectively in small rooms, or even in very tight chests, books requiring treatment for the destruction of borers or bookworms within their covers and pages.

The insects responsible for some of the most serious infestations in books as they stand on the library shelves have been effectively destroyed in 24 hours by fumigation of the library space as a single unit; and this method of combating bookworms is highly recommended when funds are available for the employment of a professional fumigator. The writer knows of no instance where such fumigation has failed.

For libraries loaning books that must be subjected to all sorts of conditions in homes, or for home owners themselves, there have been perfected formulas for washes that may be applied to book covers to prevent or retard the attack of insects. A letter of inquiry addressed to the United States Department of Agriculture, Washington, D.C., will bring details of treatment. It should always be remembered in combating book insects that frequent inspection of books, and prompt action if insects should be found, will prevent the ruin of valuable books.—(Reprinted by permission of the Smithsonian Institution, Washington, D.C.)

EDITING MODERN HISTORICAL DOCUMENTS

IN October 1921 the Anglo-American Historical Committee, appointed by the Conference of Anglo-American historians in July 1921, nominated a sub-committee to 'suggest principles upon which historical documents should be edited.' In March 1923 this sub-committee presented a report.* A suggestion was subsequently made that further consideration should be given to the special problems involved in the editing of modern documents, and accordingly on 6 July 1923, the Anglo-American Historical Committee appointed a second sub-committee to report on 'the principles upon which modern historical documents should be edited.'

A preliminary report was presented in July 1924, and the final report is now submitted.

The committee, as originally appointed, consisted of:

Professor C. W. Alvord, formerly of the University of Minnesota.

Mr. G. N. Clark, editor of *The English Historical Review*.

Mr. Worthington C. Ford, editor, Massachusetts Historical Society (Corresponding member).

Sir William Foster, Historiographer to the India Office (*Convener*).

The Rev. Dr. Claude Jenkins, Lambeth Librarian and Professor of Ecclesiastical History, King's College, University of London.

Mr. Hilary Jenkinson, an Assistant Keeper of the Public Records.

Mr. W. G. Leland, Department of Historical Research, Carnegie Institution of Washington (Corresponding member).

Professor Wallace Notestein, Cornell University (Corresponding member).

Mr. William Page, editor of *The Victoria County History*.

Mr. W. G. Perrin, Admiralty Librarian and Secretary of the Navy Records Society.

Mr. R. A. Roberts, formerly Secretary of the Public Record Office and of the Royal Commission on Historical Manuscripts, and now a Commissioner.

Mr. A. E. Stamp, Secretary of the Public Record Office and of the Royal Commission on Historical Manuscripts.

Professor C. K. Webster, University of Wales (Aberystwyth).

Secretary: Dr. H. W. Meikle, Secretary and Librarian of the Institute of Historical Research.

Mr. G. N. Clark was unable to serve, and Professor C. K. Webster resigned at an early stage, finding it impossible to attend any meetings. Other members were prevented, either by absence from London or

* This report will be published in the next issue of *The Indian Archives*.

by a multiplicity of engagements, from taking any regular part in the discussions; with the result that the actual preparation of the report fell mainly upon Messrs. Alvord, Jenkins, Jenkinson, Perrin, and Stamp, with the Convener and the Secretary. The final draft was, however, circulated to all the other members, and they have notified their agreement in general with its terms.

It is of course to be understood that the report is the outcome of much discussion and that no individual member of the committee is to be regarded as binding himself to more than a general acceptance of its recommendations.

CONTENTS

- PART I. Preliminary Observations.
- PART II. Transcription.
- PART III. Lists, Descriptive Catalogues, Calendars.
- PART IV. Editor's Introduction, Notes, etc.
- PART V. Spelling and Punctuation.
- PART VI. Dates.
- PART VII. Indexing.
- PART VIII. General Suggestions.

I. PRELIMINARY OBSERVATIONS

The report made by the first committee laid down the principles on which historical documents should be edited, whatever their date. This committee assumes that, when it was asked to report upon the editing of modern historical documents, the intention was that it should consider in greater detail the application of those principles to documents of a post-mediaeval type, such as occur normally in England from the beginning of the Tudor period. The following observations should therefore be taken as supplementary to the previous report, in the recommendations of which this committee concurs generally.

The problem of the publication of modern documents differs in one important respect from that of mediaeval ones. In the case of the latter, the number of documents is relatively few and the publication of the whole may generally be held up as an ideal possible of achievement. On the other hand, the machinery of the modern world is much more complex and throws off documents by the million. Comparatively few of these documents will ever be published *in extenso*, and the majority will receive no more attention in print than an indication of their existence in a given repository.

In spite of this difference, this committee has attempted to maintain in its recommendations the fundamental principle that formed the basis of the report of the first committee. This principle may be thus stated: the document or documents should be treated in such a manner that no subjective element is added by the editor.

It has been suggested that this committee should deal with a question of policy—that of publishing selections from series of documents: it is urged that cases frequently occur where an editor is confronted with a series or collection so bulky that he cannot hope to cover it all, or, again, that he may be dealing with one of which a large portion appears to be of no interest to his readers. This committee finds it impossible to give advice where the subjective element is permitted to play so important a part. The judgments of editors are variable. In justification of its position the committee would make the following observations:

- (a) Numerous cases have occurred where an editor has gone through a particular collection, publishing only what concerned his special interest and leaving to others the task of repeating, perhaps several times, the same labour of going through the same collection, each for his own purpose.¹ A complete edition in the first instance would have made this unnecessary.
- (b) Further, it is not enough for an editor to satisfy himself that all the interests with which he is acquainted are served by the text he produces: here, again, numerous examples might be quoted where what one generation considered useless proved to be of capital interest to the next.
- (c) It is recognized that there must always be cases calling for the issue of selections pure and simple. This is especially so in the case of documents belonging to the eighteenth and subsequent centuries. With regard to the technique of transcription and editing in such cases the rules laid down in this and the previous report will apply. The actual choice of the passages to be printed must clearly be governed by the purpose which the selection is designed to serve and cannot therefore be dealt with here. The printing extracts from a document, or of a single document, or a selected group of documents out of a large series, produces 'articles', or a 'treatise', or a 'collection of documents', but not an edition in the sense in which the word is used in this and the previous report.

II. TRANSCRIPTION

This committee accepts the 'rules for making an accurate transcript' laid down by the previous committee in the second section of its report. In dealing, however, with documents presenting no special difficulties, the editor will often find it convenient to instruct the transcriber to adopt at once any method of dealing with the text (by expanding abbreviations, standardizing the use of capitals, etc.)

¹ An example may be found in the edition of a work of Gascoigne made from a MS. in Lincoln College, Oxford, by Professor Thorold Rogers, under the title, *Locī e Libro Veritatum*.

which has been decided upon for by the stage of printing. In such cases he should instruct his transcriber to indicate for his consideration any passages the interpretation of which is not unquestionable.

III. LISTS, DESCRIPTIVE CATALOGUES, CALENDARS

Owing to their nature and bulk, it is often impossible, and even in some cases undesirable, to print modern documents in full. The committee, therefore, has felt obliged to take into serious consideration other methods of making public the contents of modern archives; and in its opinion, while the most important documents should be printed in full, the others, according to their value, should be treated by one or more of the methods explained below.

(I) Lists

Listing in the sense here used is comparable to cataloguing books in a library or to preparing a careful bibliography. A list should consist of descriptions of each document or group of documents, and should normally contain the information set out below, in so far as this has not been given already in the introduction (see *post*, Section IV).¹ Any particulars not specifically found in the document, but supplied by inference, should be distinguished from the rest by some typographical convention, e.g. the use of square brackets or italics, and the practice adopted should be carefully explained.

- (a) *Town, institution, collection, and catalogue number, or other conventional designation.* If all the documents listed are found in the same depository, a general statement in the introduction will make unnecessary the repetition of the names of the town and institution.
- (b) *Nature of document.*—In the case of a letter the names of the writer and recipient will be a sufficient indication. Care should be taken to indicate how much of the name appears in the document itself, e.g. Ro[bert Harley, Earl of] Oxford.
- (c) *Date and place of writing and (where given) the address of the recipient, and date of receipt.*
- (d) *Approximate length of the document in pages (specifying size).*
- (e) *Language, if necessary.*
- (f) *Character.*—Information should be given whether the document is an autograph, a copy (letter-book or otherwise), a signed copy, a draft, an extract, and so on. Any conventional sign which may be employed, such as A.L.S. (Autograph Letter Signed), should be clearly explained. The committee would wish to emphasise the need for caution in identifying handwritings.

¹ It may be found convenient to shorten the list by including a group of documents under one description (see *post* 'Dates—(2) Grouping').

- (g) *Anything specially noteworthy as to the condition of the documents, make-up, materials used, handwriting, or form.* (See First Report.) The question of make-up is particularly important where groups of documents occur, which may be either natural or artificial.
- (h) *Reference to any publication, complete or partial, of the document.*

An example will make the above clear:

N.Y. Pub. Lib., Misc. MSS., Doc., I. 25; Philadelphia, 15 Oct. (1775), J(ohn) Doe to Richard Roe, Esqr., of New London, now at the Gen'l Assembly, New Haven, 4 pp. A.L.S. Last page mutilated. Pub. in *Letters of Members* (ed. Hiram Wilbur), XVI. 229.

The order of these entries may, of course, be varied.

(2) *Descriptive Catalogues*

The Descriptive Catalogue differs from the List above described in that it adds to the description of the document an indication of the subjects treated therein.

As one object of a Descriptive Catalogue is to facilitate reference to the original, the order of the subjects in the latter should be preserved. An effort should also be made to include all proper names mentioned. Any particularly significant wording or spelling should, if possible, be retained, distinguished by some typographical convention.

(3) *Calendars*

Calendaring is a further extension of Listing, or Descriptive Cataloguing. The Calendar versions of each document should, therefore, include a description of it as set forth under (1).

For many years the word Calendaring was employed with a definite and technical meaning; it was limited to the process by which each section of a document was summarized in the editor's own words. (See Instructions to Editors in the Calendars of State Papers.) Historians have frequently pointed out, however, that this method of shortening a document does not satisfy their requirements, since it does not furnish them with the writer's words, upon which alone a scholarly interpretation must rest. Many editors have attempted, within recent years, to meet the demands of historians by printing in part the words of the writer. This committee prefers the latter method, and in this report uses the word 'calendaring' to designate the process of shortening a document by means of omission or abbreviation of non-essential parts, while retaining the exact phraseology of the writer in other parts.

In calendaring an editor may:

- (a) Omit unnecessary words, phrases, sentences, or clauses, sacrificing, if need be, the style of original, rather than the contents.

(For instance, he may omit the conventional terms of greeting, rhetorical passages, connecting words and clauses, etc.)

- (b) Substitute a descriptive phrase or formula for a definitely repetitive passage in the original.
- (c) Substitute a paraphrase for the less important parts of the original.

Certain further suggestions may assist the editor.

- (a) He must by notes in his introduction, by footnotes, and by typographical conventions in his text, make it easy for his reader to distinguish the editorial phraseology from that of the original and to detect omissions.
- (b) To facilitate reference to the document itself, he should retain the order of the original, or, if he departs from it in exceptional cases, make it quite clear at what points he has done so.
- (c) If the document is in a foreign language, the editor may be well advised to begin by making a literal translation and then to shorten his translation by the processes described above.

The Committee wishes to emphasise the opinion which opens the present section. In attempting to make public the contents of archives of modern documents the editor will be forced to employ every device to compress his material. He must carefully consider which of the documents are of outstanding character and should be *printed in full*, which may be abbreviated by the processes of *calendaring*, which fall in the class of the less important and may be *catalogued*, and lastly which may be so far neglected as to be merely *listed*. To reach invariably correct decisions concerning these differences, there must be united with the most careful study of the documents a sensitiveness to historical requirements which few can hope to possess. At its best the outcome will depend too much on the judgment of the editor to satisfy fully the requirements of scholarship. Yet this cannot be avoided, for the millions of modern documents present a problem in editing that is practically without a satisfactory solution. All that the committee can do is to make suggestions for reducing the materials dealt with to measurable bulk, while diminishing their value as little as possible.

IV. EDITOR'S INTRODUCTION, NOTES, ETC.

Information supplied by the editor in addition to the text itself is of three kinds:

- (1) Descriptive of the original documents.
- (2) Textual criticism.
- (3) Information bearing on the subject-matter, such as historical, geographical, or similar notes

This information may be supplied in various ways:

- (a) Footnotes.
- (b) Special explanatory matter prefixed or appended to a section of the text.
- (c) Appendices.
- (d) General Introduction.
- (e) Index.

(a) Footnotes should as a rule be reserved for textual criticism. Explanatory matter should not be put in footnotes if it can conveniently be conveyed to the reader in some other place (introduction, appendix, etc.). Thus cross-references to other parts of the text, unless they bear on the accuracy of the passage, are as a rule best omitted from footnotes. Nor should these contain identifications of persons or places; these may be inserted in the text (between square brackets), unless they can be reserved for the index. The editor may of course use his discretion as to exceptions in particular cases, always remembering that to a certain extent all notes are an interruption to the reader. Long footnotes are to be avoided.

(b) Special explanatory matter. When an edition is being prepared of a number of documents or of a document consisting of various sections, so much of the description of each document, group of documents, or section as cannot conveniently be put in the introduction is either prefixed as a heading or added in a note following the portion of text involved. Some editors give other information also in this way.

(c) Appendices may be used by the editor for supplying any information requiring too much space to be conveniently given in the body of the work and too limited in its application to be included in the general introduction. They are also used for supplementary documents which the editor desires to print but does not feel justified in incorporating in his text.

(d) General introduction. This is the part of an editor's work in which his personality may legitimately appear; and he may, therefore, allow himself considerable latitude in writing it. But it will be expected to contain information on certain definite points:

- (i) *A description of the document or documents concerned.* The points to be noticed are set out in the First Report, Part III. See also *ante*, Sect. III (1). In preparing an edition of a collection of separate documents, a less elaborate description may be required than in the case of a single one; but information which is common to all or a number of documents may sometimes be given more conveniently in the introduction rather than in the text. For instance, the general nature of the collection should be stated, e.g., whether it contains literary manuscripts, title-deeds, estate documents, household accounts,

correspondence, mention being also made of any specially interesting series of letters or documents, and of the districts to which title-deeds, etc., relate.

- (ii) *The history, ownership, and place of deposit of documents* in so far as this does not appear in (i). An account should be given of the way in which a collection has been formed, and, if it has absorbed a number of collections, the history of each.

Note.—To a work such as the collected letters or writings of an individual which have been brought together from various sources the above remarks are inapplicable. The editor will in this case be expected to give some account of all sources explored, whether with or without result. The student should be in a position to know whether any possible source has been overlooked. Any description of unknown or little-known collections of documents consulted, that can be given without unduly overloading the introduction, increases its value to the student who is not merely a specialist in the subject-matter of the work.

- (iii) *The relationship or connexion between the contents of the work and any other published or unpublished collection.*
- (iv) *Any previous publication* in whole or in part, and any modifications introduced into the work in consequence.
- (v) *The methods adopted by the editor*—arrangement of documents, omissions, condensation, etc.
- (vi) *Typographical conventions, methods of conveying information by footnotes, etc.* It is the editor's duty to give such an account of these that his readers may never be at a loss to interpret his references, abbreviations, or conventional signs.
- (vii) *The historical bearing of the work.*

The editor should always bear in mind that his purpose is to give an account of the documents which he is editing, rather than to write an historical treatise justified by these documents. The documents are to be the book, not an appendix to it. Even if his materials contain a story it is not necessarily his duty to tell that story: his publication is rather to enable other scholars to do this. But anything new in the way of historical facts or in the way of presenting known historical facts should be indicated, as well as the general effect of the publication in modifying existing opinion.

He may also call attention to unusual turns of expression, strange words, and, in general, anything out of the ordinary that might otherwise escape notice.

The above remarks are intended only to indicate certain points which the editor must not overlook. Other points will doubtless arise; but on these he must exercise his own judgment.

- (e) The Index is treated in a special section below.

V. SPELLING AND PUNCTUATION

As regards spelling, an editor may either (a) frankly modernize or (b) adhere as closely as possible to the spelling of the original document, abbreviations being extended on the lines laid down in the First Report. In any case care should be taken that personal or place names, the names of foreign coins, weights or measures, any unusual word, and any variations in spelling which imply variations in pronunciation, should be spelt as in the original, especially when they occur in more than one form. It may, for instance, be uncertain from the text whether 'Thomson' or 'Thompson' is the correct form, and in such a case the reader must be enabled to draw his own conclusions. In the case of *i* and *j*, *u* and *v*, modern practice may be followed, and words should be separated or joined in accordance with present-day usage, but only where this is possible without destroying anything characteristic; for example, at certain periods and in certain places *ij* might stand for *y*, or *cestavoit* be definitely treated as a single word. In any case, since the survival, for instance, of the use of *u* for *v* is of interest to some students, all such peculiarities of the text should be noted in the introduction.

It is customary to adopt modern methods of punctuation, and cases are few in which departure from this procedure is advisable. The editor should, however, be careful not to alter the sense of a passage in altering the punctuation; and in any instance where the meaning is doubtful, he should draw the reader's attention to the fact, and state how the punctuation stands in the original. Peculiarities of punctuation should also be covered by a note in the introduction.

VI. DATES

(1) *Old and New Style*

In dealing with documents anterior to the adoption by Great Britain of the New Style, great care must be exercised in the matter of dates, particularly when letters written in different countries are mixed together. In such a case the editor will probably make the minority conform to the majority, either by altering the date *sub silentio* in the text (announcing the fact in his introduction), or by inserting the double dates (10/20 or $\frac{10}{20}$), or by printing the date as it stands and adding in square brackets O.S. or N.S. as the case may be. The second of these courses appears to be the preferable one.

With documents which are dated throughout in the Old Style no difficulty arises; but it is often advisable to add a correction of the year date for the period from 1 January to 24 March, e.g. '15 February, 1700 (-01).' Should, however, the editor decide to correct such year dates to accord with modern usage, the fact should be mentioned in the introduction.

(2) *Grouping*

The occurrence of groups of documents in a list raises special difficulties in regard to *dating* and *description*. There are three possibilities:

- (a) A number of documents may have been preserved in a group because they are all subordinate to a single transaction, whether or no that transaction was embodied in a single document which has also survived. Vouchers to an account and enclosures to a letter offer obvious examples.
- (b) On the ground that they are clearly of the same description as those mentioned under (a), an editor may decide to group a number of documents which were not actually preserved together, or have become separated.
- (c) In order to save space, an editor may decide to group a number of separate documents (for instance, all the letters exchanged by two correspondents, or all those upon some particular subject, or all those bound up in a certain volume) because of their similarity of form, even though (unlike the documents described under (a) and (b)) they are independent of each other and not subordinate to any single document or transaction.

The dating of classes (a) and (b) above is an easy matter. The editor should follow the archivist's rule by which the governing date for their arrangement is that of the document or transaction to which they are subordinated, the vouchers (no matter what their date) being arranged under the date of the account, the enclosures under that of the letter, and so forth. Cross-reference from the dates of the individual documents may be used if necessary.

In the case of (c), where the editor's arrangement has no relation to the structure of the documents, a covering date should be employed.

Thus a group of documents subsidiary to the making of a treaty, and preserved accordingly, will be correctly arranged under the date of the treaty; but a group of independent documents, placed together by an editor purely for convenience, even though the point of contact between them may still be the fact that they all refer to the same treaty, will yet be properly arranged under a date covering their own dates, not that of the treaty.

Apart from the case last mentioned, the use of *Covering Dates* will normally be reserved for the cases where a single document (e.g. a diary, or letter book, or book of accounts) covers a series of years. Such a document may, of course, have attached to it a group of subordinates of varying dates. The date under which the whole will appear in the list must then be that of the single document.

(3) *Conventions in Dating*

It may be useful to add here some suggestions as to the typographical and other conventions to be used in dating and similar matters.

- (a) Where covering dates are used, the place of the group of documents in a chronological list should be governed by the first (1812-1819 coming before a document dated 1813): of two groups beginning with the same date, that which extends over a longer period should come second (1812-1819 coming after 1812 or 1812-1814); and any gaps, or periods containing abnormally few documents, within the covering dates should be noted.
- (b) The following distinctions between typographical conventions are suggested:
- 1812, 1813 (covering date consisting of two years' only).
 1812-1814 (covering date consisting of more than two years).
 1812/1813 (conventional year consisting of part of two Calendar years).
 $181\frac{1}{2}$ (single year expressed in New and Old Style).
- (c) Documents which can only be assigned to a period (week, month, and so forth) should be placed at the end of that period.
- (d) '22 July, 1753' is preferable on the whole to either 'the 22nd July, 1753' or 'July 22, 1753.'
- (e) It is of great assistance to the reader if the year date is inserted at the top of every page.

VII. INDEXING

An editor should, if possible, construct his own index. In any case he should plan it, and carefully supervise its execution; otherwise, obscure allusions to persons, places, or events may be missed or misinterpreted. The editor should also remember that it is the ideal of an index, as of an edition, to be complete. This means generally a very large index; but it may be added that a great deal more can be done than is usually attempted, to secure economy in printing, by devices such as the running on of sub-headings under a main heading (with a suitable system of punctuation), the use of different types for special purposes, the abbreviation of Christian names on a fixed plan, and so forth. Some special considerations are set out below.

(1) *Scope*

The introduction and notes should be indexed as well as the text; but mere references to books mentioned in footnotes need not be indexed, unless quotations have been made from them.

(2) *Arrangement*

The entries under a particular heading, if numerous, should be analyzed into groups, each containing only a moderate number of entries. In the case of persons it is often more convenient to arrange these groups in chronological rather than in alphabetical order. Where references are unimportant, it may suffice to give the page references immediately after the heading.

It is essential that an index should be consistent throughout. Common faults are the entering of references to the same subject under different headings, and the use of unsystematic punctuation and spacing. The latter are matters which should not be left to the printer.

(3) *Place and Personal Names*

Every name must be indexed. Reference has already been made (see *ante*, Sect. IV(a)) to the advisability of giving in the index certain information which is sometimes given in footnotes, such as, in the case of persons, their titles, and, in the case of unfamiliar places, the country or county in which these are situated, together with the identifications of obsolete or misspelt forms.

In cases of two or more persons or places of the same name, the references to them should be carefully separated in the index, some distinguishing words being added in brackets. If this cannot be done, the reader should be warned that the entry covers more than one person.

Titles present some difficulty, as in the case of Sir Thos. Osborne, successively Earl of Danby, Marquess of Carmarthen, and Duke of Leeds. If the work covers his whole career, the preferable course is to put the references under his family name, with cross-entries under the titles; but if it deals only with the period when he was Lord Danby, that may be adopted as the main entry, again with cross-entries.

(4) *Subjects*

It is here that omissions most commonly occur, and here, therefore, that most care is needed. The editor should remember that the index is to represent the contents of the book, not his conception of what is important in it. Entries in a subject index should be grouped wherever possible, with suitable cross-references. *Noble*, p. 104 conveys nothing: whereas *Noble*, see under *Coinage*, and the corresponding group of entries, will really help the reader.

VIII. GENERAL SUGGESTIONS

(1) *Page Captions*

The very general practice of repeating the title of the work at the head of each page is of little help. The title of the particular section, or heading varying with the contents of the page, is to be preferred.

(2) 'The Same,' *Ibid.*, *Op. cit.*, etc.

To avoid repetition, the practice is often adopted, especially in calendaring, of using 'The Same' in place of the name of a person and 'Ibid' instead of repeating the location of a document. These substitutions, however, should never be carried beyond the two pages open before the reader. On turning the leaf he should find both the name and the location set out again in full. The same practice should be observed in the use of *op. cit.* in footnotes.

(3) Quotations

In case of a quotation, the reference should be to the actual source from which it is taken. For instance, if a quotation is taken from a calendar without examining the original, the only proper reference is to that calendar.

(4) Abbreviations

The multiplication of abbreviations should be avoided. It is disconcerting to a reader to be faced with a long list of abbreviations and conventional signs, only to find that many occur but once or twice in the course of the book.

CONCLUSION

In conclusion, the committee would urge that in the future more might be done to make complete publication possible by the co-operation of a number of editors, or publishing bodies, each interested in the issue of some section of a given document or series of documents.

—From the *Bulletin of the Institute of Historical Research London*.
By kind permission.

TWENTY-THIRD SESSION OF THE INDIAN HISTORICAL RECORDS COMMISSION

THE twenty-third annual session of the Indian Historical Records Commission was held at the historic city of Indore, capital of the Holkar State in Central India, during 20-21 December 1946. The public meeting held on the 20th evening was preceded by the ninth meeting of the Research and Publication Committee in the morning.

R. and P. Committee

The Research and Publication Committee considered the action taken on its earlier recommendations made at Peshawar (1945) and New Delhi (March 1946) and took among others the following decisions:—

1. Recommended the following for editing five volumes of the East India House—Fort William Correspondence under Scheme I of the Five-year Publication Programme: Brigadier H. Bullock, Principal Sita Ram Kohli, Dr. Yusuf Husain Khan, Dr. S. N. Das Gupta and Dr. Indu Bhushan Banerjee.
2. Recommended that the records of the Government of India and the Provincial Governments prior to 1901 be thrown open to *bonafide* research students and that the Governments concerned may be moved to transfer all records including Crown records up to 1901 to the custody of the record offices under them.
3. Recommended that the Government of India may undertake suitable legislation for preventing unwarranted destruction and export of historical documents and manuscripts from India.
4. Recommended that all future publications of the Government of India be printed in sufficient number to meet possible demands for a period of 20 to 30 years.
5. Recommended that Provincial Governments be requested to publish the list of members of the Provincial and *ad hoc* Regional Survey Committees in the Provincial Gazette.
6. Recorded the Committee's appreciation of the services rendered by the Collector of Tanjore, Mr. T. S. Ramachandran, Mr. K. R. Srinivasan and the Honorary Secretary, Tanjore Saraswati Mahal Library in rescuing the Tanjore records from destruction, and
Recommended that these records should be removed to the custody of the Tanjore Saraswati Mahal Library and that adequate provision be made for their indexing and cataloguing.

The following is a résumé of the resolutions adopted at the eighth meeting of the Committee in March 1946 at New Delhi:—

1. Recorded the Committee's sense of loss at the death of Rao Bahadur C. Hayavadana Rao.
2. Recommended the setting up of a sub-committee to consider Dr. R. C. Majumdar's resolution that all pre-Mutiny records in the custody of Local Governments be placed in charge of the Imperial Record Department and made a Central subject for the purpose of administration, and Dr. B. A. Saletore's resolution that an application be made for a Royal Charter for the Indian Historical Records Commission.
3. Recommended that the Provincial Governments be requested to grant all reasonable facilities to *bonafide* research scholars to work among official records in Provincial custody.
4. Recommended that the Regional Survey Committees be directed to encourage the examination of old historical records, whether in private or official custody, and the Local Governments be requested to give all facilities to the Committees to fulfil this duty.
5. Recommended that the Regional Survey Committees in the Provinces and States be given facilities to carry on their work in and to have easy access to the adjoining places and to take impressions, photographs, etc., wherever necessary, and that members of the Survey Committees be given facilities to utilize dak-bungalows and to secure provisions and transport at reasonable rates.
6. Recommended that the Government of India be requested to ask Provincial and State Governments to set up permanent Regional Survey Committees.

Members' Meeting

At 2-30 p.m. on 21 December 1946 was held the Members' meeting of the Indian Historical Records Commission. The Commission passed votes of condolence on the death of Sir Manubhai Mehta, Professor H. H. Dodwell, Sardar Sir Jogendra Singh and Dewan Bahadur Dr. S. Krishnaswami Aiyangar and congratulated Dewan Bahadur C. S. Srinivasachari and Mahamahopadhyaya Professor D. V. Potdar on the honours conferred on them and Dr. Tara Chand on his appointment as Vice-Chancellor of Allahabad University.

The Commission then considered the action taken on its previous resolutions. In course of the discussion the following informations were elicited:—

1. Government of India's Director of Archives has been carrying out the programme of inspecting Central and Crown records deposited with Provincial Governments and Agencies and,

- incidentally, of the records belonging to the Provinces and States wherever he was requested by the owners to do so.
2. The Imperial Record Department has acquired apparatus and men to make microfilm copies of records for supply to scholars, but no work could be done due to lack of accommodation at the disposal of the Imperial Record Department to install the apparatus.
 3. The Imperial Record Department has ordered machinery and apparatus with which to start a full-fledged research laboratory for archival purposes, and that a member of the Imperial Record Department staff was undergoing training at the National Archives, Washington, for this purpose, but that even what equipment the Imperial Record Department had could not be fully exploited due to lack of space.
 4. Lack of space had also hampered the progress of Imperial Record Department's publication programme.

The Chairman (the Hon'ble C. Rajagopalachari, Member for Education, Government of India, *ex-officio*) promised to look into the matter and do what was possible.

The recommendations of the 8th and 9th meetings of the Research and Publication Committee were then approved by the Commission.

Discussion next turned on Dr. R. C. Majumdar's resolution before the Research and Publication Committee regarding a central control of all pre-Mutiny records. A note by Mahamahopadhyaya D. V. Potdar was read in this connection who while agreeing with Dr. Majumdar in principle differed on the agency of central control suggested by Dr. Majumdar. He recommended certain reforms. Eventually the following resolution was moved from the Chair and unanimously adopted:—

'This Commission recommends that a Committee consisting of (1) Dr. R. C. Majumdar, (2) MM. D. V. Potdar, (3) Dr. I. H. Qureshi, (4) Prof. K. A. Nilakantha Sastri, (5) MM. B. N. Reu, (6) Dr. K. N. V. Sastri, and (7) Dr. S. N. Sen be appointed to consider and recommend to the Government of India the steps to be taken to conserve all records of historic as distinguished from current importance which are in charge of various Provincial Governments and States. The Committee is authorized to make recommendations to the Government of India direct with the authority of this Commission should the Committee deem it desirable.'

The remaining decisions of the Commission were as follows:—

1. Recommended that the Research and Publication Committee should act independently of the Commission.
2. Recommended that cultural contacts be established with foreign countries and the Governments of France, U.S.A.,

- China, U.S.S.R., Australia, South Africa, Nepal, Ceylon, Iran and Afghanistan be approached to co-operate with the activities of the Indian Historical Records Commission by nominating corresponding members.
3. Recommended certain additions to the weeding rules framed by the Local Records Sub-Committee and approved by Government, and voted that no weeding should be done until the constitution of the country is finally settled.
 4. Recommended changing the name of the Imperial Record Department to 'The National Archives of India'.
 5. Recommended that the Government of the United Provinces take steps to establish a central record office and maintain the pre-Mutiny records at a central place to save them from neglect and destruction.
 6. Recommended that the form drawn up by the Local Records Sub-Committee for compiling the annual reports of records offices be followed by all records offices.
 7. Recommended acceptance of the Jaipur Government's invitation to hold the twenty-fourth session of the Commission at Jaipur in 1947.

Public Meeting

The Public Meeting of the Commission was held at King Edward Hall, Indore, at 5-10 p.m. on 20 December. In the absence of His Highness the Maharaja Holkar, the meeting was inaugurated by Mushiruddaula Raja Gyan Nath, C.I.E., Prime Minister. The Hon'ble C. Rajagopalachari presided.

An exhibition of historical manuscripts and relics organized by the Holkar Government was opened by the Hon'ble C. Rajagopalachari. As usual a number of research papers based on unpublished documents were read.

In response to pressing public demand, the Secretary arranged a series of popular lectures by members of the Commission, viz. Rev. Father H. Heras, who spoke on 'The Indus Valley Civilization and its Offshoots Westward'; Dewan Bahadur C. S. Srinivasachari spoke on 'Marathas in South India'; Dr. R. C. Majumdar spoke on 'Greater India'; and Professor K. A. Nilakantha Sastri spoke on 'Dharma Sastra and Artha Sastra'.

The Holkar Government arranged for the members of the Commission excursions to historic places in and around Indore city. They were taken by special arrangement to Maheshwar, the old capital and seat of the Holkar Government and associated with Devi Ahalyabai. At the invitation of the neighbouring Dhar State, an excursion was made to Dhar Fort and the ruins of Mandu.

NEWS NOTES

INDIA

Imperial Record Department

Accessions.—A brief reference was made in the last issue to the nature and extent of the holdings of the Imperial Record Department. A more detailed note on the subject is reserved for a subsequent issue. In theory the Department's duty is to receive for custody any record of the Government of India which has ceased to be required in current administration. In practice, the Department has been able to discharge this duty in respect of only the Administrative Departments and a few Attached and Subordinate Offices. The bulk of the Central Government's records are still lying in the archives of the individual departments. The Department expects to take them over as soon as it has been able to solve its problem of space. Information is also lacking as to the nature and volume of these collections. To remove this deficiency the Department has outlined a project of compiling a full register of information on all records of the Government of India wherever they may be located. The project has received unqualified support from the Local Records Sub-committee and the Research and Publication Committee of the Indian Historical Records Commission, and a set of questions has been drawn up for issue to the different agencies of the Government of India asking for information on various points connected with their records. The questionnaire also aims at eliciting information on the records of the defunct agencies of the Government of India.

Among other projects under the consideration of the Department is that of acquiring from abroad transcripts of records of Indian interest. The Department has already begun correspondence with foreign archival institutions in this regard and a number of archival repositories have agreed to co-operate with this Department in making the scheme a success. Mention may be made in this connection of the Bibliothèque Nationale, Paris, the State Archives, Norway, the Public Record Office, Northern Ireland and the Register House, Scotland.

Recent acquisitions of the Department include the records of the Mercantile Marine Branch (1914-41), the Ports and Light Branch (1919-23), the Internal Trade Branch (1917-23), and the Treaties and Ecclesiastical Branch (1929-41) of the Commerce Department; of the Forest and Land Branch (1940-43), the Food Production Branch (1943) and Agriculture Branch (1941-43) of the Agriculture Department; of the Budget, Finance, Regulation, Expenditure and Reform Branches of the Finance Department (1937), and of the Education Department (file proceedings, 1942-43). Among other collections acquired mention

may be made of those transferred by the Indian Council of Agricultural Research (formerly known as the Imperial Council of Agricultural Research) and the Office of the Director-General of Indian Medical Service. The chief archive groups included in the first item are the records of the Agriculture Branch I and II (1940-42), the General Branch (1940-42), the Locust Branch (1940), the Lac-cess Branch (1940-41), the Sugar Branch (1940-41); the Development Branch (1941-42), the Publication Branch (1940-42), and the Animal Husbandry Branch (1940-42). The second item includes the records of the Indian Research Fund Association (1941); the General Branch (1942); the Nursing Branch (1942); the Indian Medical Department (1942); the Recruitment Branch (1935-42); the Stores Branch (1942); the Air-raid Precaution Branch (1941-43); the Records Branch (1942); the Provisioning and Procurement Branch (1942); and the Public Health Branch (1942).

Besides the collections noted above the Department has also received for custody a huge mass of records belonging to the Survey of India ranging from 1777 to 1898. These records contain more than a thousand packages and form an indispensable source of information on the early survey activities undertaken by the officers of the East India Company as well as the various survey organizations of the Government of India. Among the most interesting collections in these series may be mentioned Mr. Colebrooke's papers on Routes with Madras Army (1784-85), Colebrooke Journal (Calcutta to Pulo Penang, 1787-88); Papers on Astronomical Observations (1786-1828); Collin Mackenzie's papers on Mysore Survey (1799-1807); Papers of Kushal Singh and Gansham Das on Punjab and Kashmir Survey (1809); Lambton and Everest papers (1801-1825); original letters of Everest (1823-25); Bayfield's Narrative of Survey from Ava (1836-38); Du Vernet records on Himalayan Survey (1841-43, 1848-54); papers relating to Radha Nath Sikdar (1849-57); Bhutan Survey records (1863-65); Siam-Tenasserim Boundary Survey records (1865); Journals and Journeys in Tibet (1861) and many others on equally interesting topics. A fuller account of these records can be read in the article entitled 'Survey of India Records' contributed by Col. R. H. Phillimore to the January issue of this journal. The Surveyor-General in India has planned a series of publications based on these materials under the title *Historical Records of the Survey of India*, of which the first volume, *18th Century*, has been published. It has been reviewed on a subsequent page of this issue.

Preservation and allied programmes.—A brief account was given in the last issue of the various measures taken by the Department to afford its records the maximum protection against the ravages of time and climate, dust and atmospheric acids, fungal and insect pests. The Department has since placed orders in U.S.A. for a laminating

hydraulic press to facilitate repair of records with cellulose acetate coating. The process consists in heating cellulose acetate foils to a plastic state and pressing it into the pores of paper, both forming together a homogeneous unit, when cooled. Documents repaired by this process are infinitely more satisfactory than those repaired by any other process from the standpoint of resistance to natural ageing, and are very resistant to attack by insects and mildew spores. The coating also affords protection against atmospheric impurities, moisture and dust. The process is, moreover, cheaper and quicker than any manual method of repair. Before, however, the documents can be laminated or sent to the muniment rooms it is necessary that they must be fumigated and freed from dust and dirt. To facilitate this work the Department has already placed orders for a vacuum fumigatorium, which in fact is an air-tight steel chamber for killing by means of a lethal gas insects and larvae that feed on books and documents. The Department has also arranged for the importation of a pair of humidifiers of the Pettifogger type to help flattening of records before they can be sent to repair. Other mechanical appliances which the Department expect to import shortly in connection with repair work are an electric boiler to operate the laminating machine, a number of air-cleaners for blowing away dust from the records and a few steel trays and racks to help the humidifying process.

Other projects under this head include setting up of a bindery for re-conditioning of crumbling and damaged volumes and also for the binding of laminated sheets, and a repair section for maps and special type archives. The question of air-conditioning the existing stock-area is under the consideration of Government. Government is also considering a proposal for an entirely new archives building conforming to modern requirements. The Department is planning to replace the present system of storing records between wooden boards by storage in cloth-mounted cardboard boxes. It may be mentioned that the Archivist of the U.S.A. in his 10th annual report has recommended this system as much preferable to that of using steel-containers from the point of view of both flexibility and economy.

Lack of space has prevented the Department from making full use of the microfilm apparatus which it acquired two years ago. The microfilm unit is still without a whole-time staff and some accessories essential to the photographic work are still lacking. Even so the record of the unit has not been a total blank. It has micro-copied a number of proceedings volumes containing faded writing and a mass of original consultations relating to early British rule. Among other items microfilmed are some rare and old maps, a number of Sanskrit documents (1778-1859), a few rare books now out of print and a collection of rare photoprints of aboriginals in Indo-China, all but one set of which were destroyed during the last war. The unit has also made micro-copies of a number of autograph manuscripts of

Rabindranath Tagore, being the property of the Rabindra Bhavan, Bolpur. It has acquired a microfilm positive printer for continuous printing of positive films and expects shortly to acquire a camera for copying bound volumes, a number of microfilm readers, a drying drum, a temprite cooler, an automatic film processor and a photo-copying machine.

Laboratory and technical research.—A brief account was given in the last issue of the work being done in the laboratory affiliated with the Department. The same issue also contained an article embodying the results of the investigation conducted in the laboratory on certain aspects of the preservation of palm-leaf manuscripts. In the present issue has been published a note contributed by S. Chakravorti, Archival Chemist, and P. C. Majumdar, Junior Chemist of the Department, which describes the results of the research carried out in the laboratory on the effect of 'sulph-arsenic' on paper. Among other experiments taken in hand mention may be made of those relating to the re-conditioning of worn-out palm-leaf manuscripts. As a result of these the laboratory has been able to evolve a special method of repair which consists in coating worn-out leaves on both sides with cellulose acetate foil by means of a plastic adhesive and then rubbing them with a smooth rubber roller. A completely damaged and worm-eaten manuscript received for repair from the Adyar Library, Madras, has been restored by this method. Whether the cellulose coating enhances the resistivity of the leaf to natural ageing has yet to be thoroughly investigated.

Mention also may be made of an experiment made in the laboratory with the fumes of *Gammexane* (gamma isomer of benzene hexachloride or $C_6H_6Cl_6$, also known as 666). The finding of the laboratory is that while the fumes do not produce any effect on insect larvae they render the paper exposed to them extremely brittle and also change its colour to brown. The breaking strength of the treated paper, after it had been subjected to the accelerated ageing test, was seen to have been reduced to nil.

Investigations are also being carried on as to the advisability of the use of DDT (dichloro-diphenyl-trichloro-ethane) in libraries and records repositories. The initial experiments with solutions of DDT, prepared in organic solvents, show that while psocids and termites succumb to its toxic action within a few hours, it produces absolutely no effect on cockroaches. Mildew spores have been found to have defied it completely. The laboratory is not yet in a position to report anything definite as to its effect on the durability of paper. Further experiments are under way.

Investigations have also been taken in hand on the possibility of utilizing *neem* (*Melia azadirachta*, *Melia indica*) as a substitute for some of the rare chemicals used in the manufacture of dextrine paste.

Researches in the laboratory have established *neem* as a very effective insecticide. As a fungus-killer it has been found to be infinitely superior to white arsenic. The question whether its insecticidal properties have anything to do with its colour is now demanding the attention of the laboratory.

Other inquiries instituted include those relating to the study of fibrous and non-fibrous constituents of paper and their bearing on its durability. Samples used in this examination are being obtained from the muniment rooms of the Imperial Record Department.

To facilitate the work in the laboratory arrangement is being made by the Department for the acquisition of a number of appliances essential to research work. The laboratory has acquired a Dekhotinsky oven for accelerated ageing test and expects shortly to acquire paper testing machines such as Desk micrometer, Schopper type tensile strength tester, Schopper type folding endurance tester, Mullen bursting testers, a photomicrographic camera for fibre analysis, pH meters for determination of hydrogen-ion concentration and acidity in paper, an infra-red lamp for analysis of ink, and ultropak for fluorescence microscopy.

Research and Publication.—Thanks to the policy adopted by the Government of India in 1940 of throwing open its records till 1880, there has been a steady increase in historical investigation based on unpublished official sources. In 1945 and 1946 excerpts amounting to 7,000 and 5,070 pages, respectively, were released. Actually a much larger quantity of excerpts had been submitted for scrutiny but the work of scrutiny failed to keep pace with the submission of excerpts for lack of sufficient staff. Facilities granted for research included searches and inquiries undertaken by the Imperial Record Department on behalf of the investigators. This entailed, besides searches in the archives, prolonged consultation of, and check up by, published and printed sources. In 1946 no less than 55 scholars were registered at the Imperial Record Department; 25 years ago the number was three. In the list of regular investigators are included a number of high officials, university and other teachers, research students, etc.

In the last report reference was made to the Five-year and Twenty-year Publication Programmes. The editing of the Fort William—East India House Correspondence is progressing satisfactorily; the editing of the Sanskrit letters preserved in the Imperial Record Department and of the Indian Travels of Thevenot and Careri has been completed. Both these publications are expected to be out by the end of 1947. Volumes VIII and IX of the Calendars of Persian Correspondence (1788–1791) are now in the press. The work on indexing is continuing. The printing of annual reports has been resumed and the Report for 1945 is awaited from the press.

Training in Archives-keeping.—The training course, to which a reference has been made in the last issue, is known as the Diploma Course in Archives-keeping. At present there is provision for taking in a limited number of students only and preference is given to candidates deputed by Provincial Governments, Indian States, Universities and learned institutions. Training, both theoretical and practical, is imparted in (1) Archival Administration (six months); (2) Repair and Preservation of Archives (six months); (3) Calendaring and Indexing (three months each); and (4) Librarianship (six months). Greater stress is, however, laid on the practical side of archivism. The full course of two years is generally open to candidates who have taken the M.A. degree in History at any Indian University; the one year's course comprising any two subjects is generally open to graduates in History; Librarianship, however, has to be combined with Preservation. A six months' course in Preservation alone is open normally to graduates in science and employees of archives offices, manuscript repositories and the like. No fees are charged for any of the courses. Written tests and practical examinations are held on completion of the course and successful candidates are awarded diplomas and certificates by the Government of India. A beginning has thus been made for meeting a long-felt want in the country and it is gratifying to note that the training course has proved popular. Till the end of 1946 about 30 candidates out of a large number of applicants were admitted for training. Of these 18 completed their respective courses and were awarded diplomas and certificates. These candidates represent all parts of the country, the majority being deputed by Indian States and Residencies and the rest by Provincial Governments and Universities. Candidates so trained are reported to have been preferred by recruiting agencies for filling up posts of archivists.

Special Exhibition of 'Asiatic' Documents.—Towards the end of March 1947 New Delhi held the first Inter-Asian Relations Conference. The Imperial Record Department displayed a select number of documents bearing on India's relations with different Asiatic countries during nearly 150 years of British rule in India. Owing to administrative restrictions only a fragment of its rich collection could be displayed and that only to the delegates and selected invitees. Documents written in Burmese, Chinese, Bhutanese, Arabic, Persian, Turkish and Russian as also those relating to early nineteenth century English enterprise in the East Indies attracted much interested notice.

At the archival exhibition held in connection with the Indore session of the Indian Historical Records Commission (December 1946) eighteen documents were displayed by the Imperial Record Department bearing on China alone; of these seven documents (in English) related to the Taiping Rebellion of 1853. Reference may be made to the Descriptive Catalogue of Indore Exhibition published by the Holkar

Government Press; this catalogue will be incorporated in the Proceedings of the Indore session which will be published by the end of this year.

The Department also arranged for the display of a number of documents relating to archaeological and antiquarian studies at the exhibition organized in connection with the 13th session of the Oriental Conference which met at Nagpur from 19 to 21 October 1946. Among the most important exhibits were a few autograph letters of Sir William Jones and some papers relating to the steps taken by Government in 1845 for the preservation of the frescoes in Ajanta and Ellora.

Obituary.—We regret to announce the death on 18 January of Mr. A. F. M. Abdul Ali, M.A., M.R.A.S., F.R.S.L., at the age of 62. He was Keeper of the Records of the Government of India and *ex-officio* Secretary of the Indian Historical Records Commission from 1922 to 1939. On his retirement he was appointed by the Government of India as an Additional Member of the Commission with which he continued to be associated till 1942. For long he was connected with the Calcutta Historical Society in the capacity of its Honorary Secretary and was partly responsible for the editing and publication of the Society's journal, *Bengal: Past and Present*. On two occasions he acted as the Librarian of the Imperial Library, Calcutta, once in 1924 and again in 1934, and was besides Honorary Secretary of the Board of Trustees of the Indian Museum. As a Fellow of the Calcutta University he took deep interest in educational problems. He was widely known for his scholarship, his capacity for organization and, above all, for his geniality of spirit. The many papers he contributed to learned journal include: *Notes on the History of Manipur*, *The Silk Industry in Bengal in the days of John Company*, *The Commercial Intercourse between the John Company and the Peshwas*, *Notes on the Life and Times of Ranjit Singh*. Of particular interest to archivists will be his introduction to Tod's Manuscript relating to Origin, Progress and Present State of the Pindaris which he edited for the Lahore session of the Indian Historical Records Commission, and his recent article on the *Daphne Paper of Nepal* published in the B. C. Law Commemoration Volume.

Regional Survey Committees

During the 18th session of the Indian Historical Records Commission held at Mysore in January 1942, the Research and Publication Committee passed a resolution to the effect that the Government of India should request the Provincial Governments and the Indian States to set up local committees to conduct regional surveys with a view to bringing to light records in private custody and providing for their preservation and publication. The immediate reaction of the

Provincial Governments was not very encouraging. Almost all of them had to shelve the question owing to other pre-occupations during the war. The Central Provinces and Berar Government wanted this to be taken up by Nagpore University. Many of the Indian States, however, readily responded to the call and agreed to set up survey committees. Towards the end of 1944 and particularly after the termination of the war in 1945, the Indian Historical Records Commission took steps to set up *ad hoc* Regional Survey Committees in several Provinces. At the very outset the Commission issued a set of instructions outlining the procedure to be followed in the survey operation. The Regional Committees were asked to include in the scope of their inquiries not only official agencies and well-known manuscript repositories, but also religious establishments, municipal offices, business firms, universities, educational institutions and private repositories of records. They were especially required to trace the present representatives of historical families and descendants of persons who played any part howsoever insignificant in shaping the history of their country and to enlist the services of all influential sections of the society in their work. In case the Committees came across manuscripts in an advanced state of decay, they were to secure the consent of the owner for their repair and transcription. The information collected about the new finds were to be recorded under the following heads: (1) location, (2) nature of repository, (3) inclusive dates, (4) subjects dealt with, (5) number of volumes or bundles or boxes, etc., (6) state of preservation, (7) whether the owner was agreeable to transfer his collection to a properly equipped repository and whether they were prepared to allow access to them in return for free technical service.

The Commission has secured for the Regional Committees grants-in-aid from the Central Government. With the support of Government it has also been able to arrange for a series of popular talks on the survey activities through All India Radio. The inaugural talk in this series, published elsewhere in this issue, was delivered by Sir Maurice Gwyer, Vice-Chancellor of Delhi University. Among other talks delivered so far under the scheme mention may be made of one by Dr. R. C. Majumdar, Convenor of the Bengal Committee on manuscript materials in Bengal and Assam and the one by Dr. Tarachand, Convenor of the United Provinces Committee on historical documents in the United Provinces. Co-operation of the Press Information Bureau of the Government of India has also been enlisted for giving the survey programme suitable publicity.

Reports on survey work have been received by the Committees from Bihar, the Central Provinces and Berar, Bengal and Assam, the North-West Frontier Province, Delhi and Jodhpur State. The Bengal and Assam Committee has also printed its report for the financial year 1946-47. The reports are summarized below:—

Bihar.—Professor K. K. Datta on behalf of the Bihar Committee examined the records of the Chotanagpur Division and Ranchi District, both preserved at Ranchi, and those of the Santal Pargana District at Dumka. At Ranchi he came across correspondence and statements regarding the Mutiny of 1857–59. At Dumka he found plenty of early nineteenth century documents of local administrative interest.

It is understood that the Government of Bihar has issued orders for the careful preservation of these records. Khan Sahib S. H. Askari, another member of the Committee, discovered at Maner (about 20 miles west of Patna) a number of Persian documents recording religious grants and at Jaruha near Hajipur an interesting collection of records mostly belonging to the same period. The finds at the latter place include a *sanad* granted by Maharajadhiraj Raja Man Singh to the keepers of the mausoleum of the Saint Mamubhanja (dated 1591 A.D.); attested copies of sealed *sanads* issued by Amir Khan (1675 A.D.), Bazurug Ummad Khan (1689 A.D.), and other governors of Bihar; and parwanah of Murshid Quli Khan, the Wazir (1662 A.D.) and a number of seals belonging to public officials as well as private individuals. Copies of all these finds have been kept in the Museum of the Patna College Archaeological and Historical Society.

Central Provinces and Berar.—Professor H. N. Sinha and Dr. Y. K. Deshpande have been entrusted by the Central Provinces and Berar Committee to survey and explore the records in this province. Prof. Sinha is engaged in inspecting the Government records while Dr. Deshpande is engaged in reporting on the private archives. In the report for 1945–46 Dr. Deshpande mentions the following important finds: (1) three original grants of the seventeenth century by members of Raja Udaram Family of Mahur found in the archives of Balaji Temple of Basim; (2) the original decision of the Nizamshahi Wazir over a dispute about Patelki rights of Sakharkhelda in Berar; (3) a copy of statement by Mudhoji Appasaheb Bhonsla of Nagpur which throws light on the battle of Sitabuldi; (4) family archives of the Joshis of Mangrul-Pir in Berar including a *farman* of Shahjehan; (5) family archives of the Jagirdar-Deshmukh of Parwa in Berar containing very important documents in Persian and Marathi throwing light on the history of the Gond Rajas of Chanda, dispute between Kanhoji Bhonsla and Raghujji Bhonsla, the administration of Berar under the Nizam and the early British administration of Berar; and (6) records of the Bhonsla Estates preserved in the Kothi Mahal (old Secretariat Building of the Bhonslas). Much information on the political, social and economic history of the Bhonsla period besides references to the British Residency is available in these documents. Dr. Deshpande is ably assisted in his survey by Pandit L. P. Pandeya, Mr. S. G. Ghatte, Mr. D. G. Mahajan and Mr. D. B. Mahajan who are all interested in antiquaries and ancient manuscripts.

Bengal and Assam.—The Regional Survey Committee for Bengal and Assam has Sir Jadunath Sarkar as President, Dr. R. C. Majumdar as Convener and Dr. N. K. Sinha as Secretary. The Committee devoted the entire year 1945 to devising a systematic plan for survey and exploration and a great deal of time had to be spent in formal and informal meetings, preliminary correspondence and 'in spade work in select localities'. It persuaded the Government of Bengal to issue a circular to all District Magistrates for granting facilities to the members of the Committee in their work. It appealed through the press to the public for full co-operation in bringing to light documents lying unnoticed. Advertisements were inserted in the leading papers of Calcutta inviting owners of important documents to grant access to their collections. Two surveys were conducted in 1946; one was in the District of Murshidabad and the other in the High Court of Calcutta. The archival collections of the Nawab family, the Collectorate and the various ancient houses of Murshidabad District attracted the notice of the Committee at the very outset and they were given priority. Some important finds discovered with the help of Prof. Nirmalya Bagchi of the local college are reported. A letter of Maharaja Nand Kumar and two grants of Rani Bhawani are among the interesting finds at Murshidabad. Dr. N. K. Sinha with the help of Dr. P. C. Gupta surveyed the old records in the custody of the Calcutta High Court and inspected during the second half of 1946 documents for the period 1749-1779. They intend to inspect the records till 1800. Dr. Sinha reports that recently he came across Omichand's will written in Nagari character in the High Court collections. The whole will has been translated in the printed report of the Bengal and Assam Committee.

North-West Frontier Province.—Mr. S. M. Jaffar, Keeper of Records and Director of Historical Research, the North-West Frontier Province, is the Convener of the Regional Survey Committee of this province. The Committee consists of 20 members representative of various classes and interests. Publicity for the survey work was done through newspapers, broadcast talks from the local radio station and public lectures on the importance of old documents, their preservation, etc. The finds include *farmans* of the Mughal Emperors and Durrani Kings, *sanads*, deeds, pedigree tables, letters and miscellaneous documents relating to the Muslim, Sikh and British periods, and a large number of manuscripts dealing with religious subjects such as *Fiqh*, *Hadith*, *Tafsir*, etc. The Committee is engaged in drawing up a comprehensive list of these finds.

Delhi.—The Delhi Regional Committee consists of eight members with Dr. S. N. Sen as Convener, Khan Bahadur Maulvi Zafar Hasan and Professor I. H. Qureshi as members and with representatives of two ancient families as co-opted members. The Chief Commissioner,

Delhi Province, has agreed to grant facilities to *bonafide* students for investigations in the records in his custody and has agreed to permit a member of the Committee to inspect these records. The manuscript collections in the custody of the Archaeological Survey are henceforth to be subjected to joint inspection of the Archaeological Survey and the Regional Committee. Khan Bahadur Zafar Hasan has prepared a descriptive catalogue of his personal collection of Persian and Arabic manuscripts and Mughal official documents; this has just been published. It is also expected that through the efforts of leading citizens like Mirza Khairuddin and Masihul-Mulk Hakim Muhammad Jamil Khan, many private collections will be brought to light.

Jodhpur. Mahamahopadhyaya Bisheshwarnath Reu, Convener, reports that a Persian scholar has been engaged to prepare a list of the Persian documents in the State Munshigiri Office and that the officer-in-charge Dastri Office is also preparing a list of documents in his custody. Information about the collections of the Jodhpur Sirdars, State officials and ancient families is also being sought.

Madras

The Madras Records Office has been engaged for more than 30 years in issuing record publications of various kinds. Till now more than 300 volumes covering all the records up to 1750 and some on the post-1750 period have been printed *in extenso*. These include (a) Public Department Records 1670-1787 covering Diaries, Consultations, Despatches, Journals, etc.; (b) Military Department Diaries, Consultations and Country Correspondence for 1752-1758; (c) Political Department, Country Correspondence 1800-1804; (d) Mayor's Court Records for 1689-1746; (e) Baramahal Records 1792-99; (f) Factory Records for 1682-1751; and (g) Dutch and Danish Records. For reasons of space a detailed list of these *in extenso* publications cannot be given here. Mention may, however, be made of *The Private Diary of Ananda Ranga Pillai* 1736-1761, running into 12 volumes in print, the *Baramahal Records* in 13 volumes, and the *Dutch and Danish Records* in 17 volumes. Three volumes of Calendars for 1740-1765 have been published and others are in preparation. *Guides to the District Records* (1682-1835) cover 40 volumes and the *Press Lists* 36 volumes.

The Curator, Madras Record Office, reports that recently the following system of stacking of loose papers and files has been introduced there. To obviate against the defects of vertical storage of such documents in bundles with planks on two sides, the following method has been introduced: 'The files are tied up into bundles (but not tightly) between wooden planks as usual. The bundles are then placed flat on the shelves side by side in such a way that the bottom edges of the bundles are parallel to the edges of the shelves. To

indicate the contents of each bundle a hinged cardboard is inserted under the top plank in such a manner that a part of the cardboard hangs down and covers the bottom edge of the bundle which will otherwise be exposed to the view. Over this part of the cardboard is pasted a printed label indicating in bold types the contents of the bundle. With a border of green canvas or calico, the cardboards hang stiffly and present an appearance of a row of cardboard boxes arranged neatly on the shelves. An advantage of this method is that it makes possible keeping one bundle over another without spoiling the general effect, if, in the interests of economy of shelf space, it becomes necessary to do so. Under the vertical arrangement the height of the shelves is generally about 16 inches. Two medium-sized bundles can therefore conveniently be arranged one over the other within this height and the need of providing more shelf space avoided. This arrangement costs almost next to nothing. All that is required is a piece of cardboard measuring about 18 inches by 9 inches and divided into two parts connected to each other by means of a hinge of canvas or calico. These boards can be made easily and very cheaply.'

The Madras Record Office is still at Chittoor, where it shifted during the war.

After an interruption of three years the Record Office has resumed the publication of its annual administration reports. The Reports for the years 1944-45 and 1945-46 are now available in print.

The Madras Corporation.—The question of storage and preservation of records forms a special concern of the city fathers of Madras. There is a separate building for records with iron racks and shelves. 'The walls of the main hall are inlaid with marble slabs which keep the surface of the walls smooth so as not to allow access to white ants and other insects.' The shelves are dusted and cleaned regularly and 'broken bits of naphthaline balls' are strewn over the records in the shelves. There are fire extinguishers to meet emergencies, and four exhaust fans are installed 'to purge out the odour peculiar to record stacks'.

Madras High Court.—The Registrar reports that in pursuance of the policy of centralizing the old records adopted by the Madras Government in 1904, the records of the Mayor's Court and the Recorder's Court, which were formerly in the custody of the High Court, were transferred to the Madras Record Office very early. The Supreme Court, the Sadar and the Foujdar Adalat Court records were decided to be transferred, but this could not be done due to lack of accommodation in the Central Record Office. The war broke out just as additional accommodation was provided and the Central Record Office was shifted to Chittoor. These records and other records up to 1896 await their transfer to the Central Record Office

when the latter returns to Madras City. Weeding of old records is done in consultation with the Curator, Madras Record Office. Repair and preservation of records are also carried on under instructions of the Curator, Madras Record Office.

Bengal

Bengal Record Office has in its custody about 10,000 bundles of Original Consultations and 11,300 Proceedings volumes in the pre-Mutiny side only. There are a number of volumes containing Danish records of the 18th century and about 5,000 Dutch *pattas* written both in old Bengali and Dutch. There is a good collection of old maps also. The records of the period till 1833 are not entirely of provincial interest since till that date 'Bengal exercised the function of Supreme Government'. The records of the post-Mutiny period are as voluminous as the pre-Mutiny records. Recently 204 volumes of pre-Mutiny records have been received from Noakhali Collectorate and 37 volumes of Nizamat Account Books for 1840-80 from Murshidabad Collectorate. Besides the publications referred to in the last issue, Bengal Record Office has published four volumes of Abstracts of General Letters to and from the Court of Directors for the period 1765-1858. There are printed indexes of the Board of Revenue records of the pre-Mutiny period. Consolidated indexes of the records of all Departments for 1859-1927 have been printed. Indexes, abstracts and detailed catalogues of a number of pre-Mutiny series are in preparation. The records of pre-Mutiny period which are perishing are being type-copied. Repair and preservation work are being hampered for lack of materials. The number of research workers has thinned ever since the transfer of the records to Berhampore. Like other records office in India the Bengal Records Office was also obliged to suspend publication of its Annual Reports in 1942. Archivists will be glad to know that the printing of this important report has been resumed and a consolidated report of work done in the Record Room for 1942-1944 has been published.

Rabindra Bhavana.—The detailed catalogue of this repository is now ready for publication. Among the fresh acquisitions of Rabindra Bhavana are: (1) a death-mask of Leo Tolstoy (supposed to be the second copy from the original at Moscow) which was presented to Rabindranath Tagore during his visit to Russia; (2) the Poet's letters addressed to Mr. Sukumar Haldar and Maharaja-Kumar Brajendra Kishore Dev Barman; (3) letters from Dwijendranath Tagore, Surendra Nath Banerjea, Sarat Chandra Chatterjee, Dwijendralal Roy and others to Pramatha Chaudhuri and Srimati Indira Devi Chaudhurani; (4) a set of letters and other documents on Charles Frere Andrews presented by Dr. Amiya Chakravorty; and (5) a speci-

men of Mahatma Gandhi's first writing in Bengali presented by Mr. Nirmal Bose.

Calcutta High Court.—'The Record Rooms of the Calcutta High Court contain documents dating from the very earliest times of British rule in India and covering about a century and a half of its most eventful period.' The records may be roughly grouped under two heads: (1) those relating to the Original Jurisdiction of the High Court and the Courts that preceded it, viz. the Mayor's Court, the Court of Quarter Sessions, and the Supreme Court, and (2) those relating to the Appellate Jurisdiction of the High Court and the Courts that preceded it, viz. the Sadar Diwani and Sadar Nizamat Adalats. For an introductory account of these records interested readers may refer to an article by Mr. Badruddin Ahmed in the *Proceedings of the Indian Historical Records Commission*, Volume V, pp. 70-76. The administrative papers of the Sadar Diwani and Nizamat Adalats are being chronologically arranged and a précis of each proceeding is being prepared. Steps are being taken for proper storage, preservation and repair of documents. The Bengal and Assam Regional Survey Committee are examining the papers marked for destruction.

Bombay

Bombay Government Records.—Bombay Government records stored at the Secretariat date back to 1640 and contain information relating to Western India and the British as well as about other European nations and include topics like Mocha, Bussora, Bushire, Gombroom, Baghdad and the Persian Gulf. Only four press lists covering the period 1646-1760 have been published till now. Records growing brittle and difficult of handling are being filmed. About a third of the records prior to 1820 has been filmed. There is a fumigation chamber and the racks are of steel. The building is fire-proof and is equipped with fire fighting appliances.

The Punjab

Punjab Government Records.—Dr. G. L. Chopra, Keeper of the Records of the Government of the Punjab, invites attention to the series of records known as Ambala-Ludhiana Agency Records. This series covers the period 1831-43. The correspondence of the Agent in charge of Ambala-Ludhiana Agency (George Russel Clerk) alone runs into 44 volumes of 400 foolscap sheets each. The documents contain information on the cis-Sutlej Chiefs, Anglo-Indian administration on the eve of the fall of the Sikh monarchy, decline of the Sikh monarchy and British disasters in Afghanistan. A number of research workers are engaged on this collection under Dr. Chopra's guidance.

Lahore High Court.—The Registrar of Lahore High Court has sent a detailed list of High Court records under certain heads. Attention may be drawn to subjects like the constitution of Punjab Chief Court (IV, A, 2); the Great European War 1914 (L. 15); unemployment in the Punjab (L. 44); Chiefs' College (L. 46); rewards during the Mutiny of 1857 (L. 50); reports on Oathaeegaras operation in 1851 (L. 52); annual report of the Thaggi Department, 1858-59 (L. 62); and Delhi Conspiracy Case (L. 69).

North-West Frontier Province

Government Records.—Mr. S. M. Jaffar, the first Keeper of the Records of the Government of the North-West Frontier Province, is now on deputation to the Imperial Record Department to study the different aspects of archives administration, as also to plan and execute the restoration of the North-West Frontier Province records which were sent to the Imperial Record Department for storage in 1940.

Assam

Government Records.—The provincial records are broadly grouped into two classes: (1) those prior to 1874 when the different districts were constituted into a province, and (2) those accruing since 1874. When in 1912 Assam was finally reconstituted into a separate province a large portion of records was transferred to Assam from Eastern Bengal and Assam Secretariat. There are printed annual indexes and monthly indexes for records since 1874.

United Provinces

Government Records.—The Board of Revenue records stored at Allahabad may be broadly divided into two classes: (1) Oudh Records, 1856-1890; and (2) Agra Records, 1803-74.

The Oudh records were arranged and indexed first in 1920 and again in 1939. Indices for Agra Records are also available; there is also an alphabetical index of files from 1857 to 1873. E. T. Atkinson, the noted editor of the series *Historical and Statistical Account of the North-West Provinces*, made indices districtwise for a number of districts in 1874. At present Mr. Mohd. Zaheer, the Registrar, is engaged in compiling a descriptive catalogue of all the Agra Records in the Old Room of the Board. He paid a visit to the Imperial Record Department to study the method of preservation and cataloguing and indexing in use at that repository.

Sind

The calendaring of the records of the Commissioner-in-Sind from 1858 to 1935 has made considerable progress and records up to 1909

have been calendared. Indexing of these records will be taken up on completion of calendaring.

Bihar

There is no organized central record office in Bihar. Old records are stored in different divisional and district record rooms of this province. The question of the establishment of a Provincial Record Office is under consideration. The old records date back to the Diwani of 1765. There is a guide entitled *A Hand-Book of the Bihar and Orissa Provincial Records* by Mr. K. P. Mitra. Investigations based on these records have been made by Mr. K. P. Mitra, Dr. K. K. Datta, and Dr. K. K. Basu. At present a research student of Patna University, Shreenarain Prasad, is working among the divisional and district records for the history of the Mutiny of 1857 in Bihar.

Baroda

The Government of Baroda have sanctioned a fellowship for research work at the State Records Room to be bestowed upon a selected graduate going up for the M.A. or Ph.D. with thesis. The proposal awaits finalization at the hands of Bombay University.

Rampur

Rampur State Library dates back to the days of Nawab Faizullah Khan, founder of the principality. With the accession of Nawab Sayyid Muhammed Said Khan the Library enters its modern phase of progress. Nawab Md. Said Khan was a man of literary pursuits and inaugurated a policy of systematic collection of old and rare manuscripts or their authentic copies. The policy was continued by his successors with such zeal that by 1870 Rampur became not only a foremost storehouse of manuscripts and rare books, but also a seat of learning. The State enterprise gave a lead followed eagerly by private individuals in manuscript collection. The collection was stored in its present building in 1892. Among its librarians in recent years are Masihul-Mulk Hakim Ajmal Khan and Mr. J. A. Chapman. Among the scholars who have utilized Rampur Library may be mentioned Maulana Mahmud Hasan Dewbandi, Maulana Shibli Numani, Maulana Zakaullah of Delhi, Maulana Abul Kalam Azad, Dr. Sayyid Ali Bilgrami, Lord Curzon and Sir E. Denison Ross.

The Manuscript Department of the Library contains works in Arabic, Persian, Sanskrit, Urdu, Hindi, Turkish, Pushtu, Gujarati, Tamil and Telugu. Specimens of calligraphy in Suls, Naskh, Nastaliq, Shafia and Shikastah, miniatures of Mongolian, Persian, Indo-Mughal and Rajput paintings and also ancient Muslim astronomical appliances are preserved here. The total number of manuscripts is now 10,619. There are several handlists of the Arabic collection prepared by Munshi

Ajmal Khan and Hakim Ahmad Nabi. A descriptive catalogue of Arabic manuscripts has been prepared and will be published soon. Catalogues of other sections will follow. Seven rare manuscripts have been published with annotations. Editing of Imam Sufyanus-Sawri's commentary of the Holy *Quran* is in progress.

Jodhpur

Jodhpur State has constituted a Regional Survey Committee under the auspices of the Indian Historical Records Commission. The activities of this Committee have been noted earlier in these notes. The State has also sanctioned the establishment of a Central Records Office and steps in that direction have been taken. Jodhpur archives contain *farmans* and other documents of historical interest. Among those deserving mention here are two *farmans* (d. 1702 and 1706) from Aurangzeb's son and grandson, a draft treaty of 1788 between Jodhpur and Khalsaji, and four *farmans* of the Kings of Kabul (1781-1802) testifying to cordial relations between Kabul and Jodhpur.

Baghelkhand

The Baghelkhand Historical Records Commission was set up by the Rewa State Council in October 1945. Its objects are twofold: organization and grant of access to the State archives, and investigation into and compilation of the history of Rewa. The Education Minister (Raja Sheo Bahadur Singh) is the Chairman and Mr. A. H. Nizami its Secretary. The Commission issued a circular letter to nearly 200 citizens throughout the State belonging to old families of Pawaidars, Dewans, Khaskalams, poets, painters and musicians belonging to different sects and tribes, requesting them for old records, genealogies and other information pertaining to their families. About a dozen addressees responded and sent their records. Though a detailed survey as contemplated by the Indian Historical Records Commission could not be undertaken during the first year of its work the Baghelkhand Commission claims to have made a promising start. The records of Churhat Ilaqa were inspected and found to contain information about the history of Churhat and Rewa. A history of Churhat in Hindi by Pandit Ratan Lal Sarma is ready for publication. The Commission acquired the manuscript of *Dhruvastak* by Maharaja Visvanath Singh, dated 1840, from the custody of a Khaskalam widow in Rewa. A large number of manuscripts in Sanskrit and Hindi have been come across and a larger number is expected to be discovered. Among those already discovered may be mentioned a Sanskrit work by Kavi Govindabhatta in praise of Ramachandra Baghela (1555-92), and *Amaresh Vilas* (Hindi, 1751) in praise of Maharaja Amar Singha of Rewa. An old citizen of Bhopal State, Thakur Bharat Singh who had compiled a history of the Solankis after a pursuit of the subject for

40 years has now offered it for publication. Preparing comprehensive catalogues of manuscripts and rare works discovered forms an objective of the Commission. The Commission is also considering steps for modernizing the State Record Office.

Coorg

There is an archival collection of historical interest in the office of the Chief Commissioner of Coorg. The documents are open to inspection and utilization for *bonafide* historical research, with permission from the Chief Commissioner. Besides documents relating to British administration of Coorg (particularly for the period 1834-44), administrative orders of the Coorg Raja (1811) and the records of settlement operations of the Coorg Rajas for 1805-1816 are preserved here.

Shimoga Intermediate College

The Professor of History of this College reports the find of 'a mangled document, about 12" x 9", on thick, rough, grey paper written in Kannada' bearing the date 1811. The document is likely to throw light on Mysore Local Administration during 1799-1831, he adds.

OTHER COUNTRIES

United Nations Archives

By far the greatest event to record about the international archival world is the formation of the United Nations Archives as a section within the Department of Conference and General Services of the United Nations Secretariat. The section was started as a part of the Library in the Hunter College headquarters of the Secretariat with Dr. Arvid Pardo as the Acting Archivist and a small staff of three or four people. Its holdings consisted of the records of the San Francisco Conference and of the Preparatory Commission. About the time the Secretariat was moved to Lake Success, the Archives Section was shifted from the Library to the Registry and Communications Division, the space allotted to the section was increased to 4,000 square feet and the staff to 20 people. The section also took over the War Crimes Commission and UNRRA records. Shortly thereafter Dr. Pardo's place was taken by Robert Claus, a member of the National Archives, who continues to hold the position of Acting Archivist. It is learnt that under the plan approved for the Archives it will consist of five units: Archivist's Office, Archives Service, Photographic Records, Appraisal and Liaison, and Index. The arrangement, editing, binding and indexing of records of the United Nations Conference at San Francisco and the Preparatory Commission are in progress. Provision is also being made for the storage and servicing a large quantity of

sound recordings of speeches delivered in Assembly Committee meetings and for preparation of microfilm copies of all current document series.

It may be mentioned that a proposal for the establishment of an international archival agency was mooted by the National Archives as early as October 1945. The proposal envisaged the storage in a properly equipped repository of the following categories of records: (1) the non-current records of the United Nations Organization and its various affiliated bodies; (2) the archives of international organizations that the United Nations displaces or absorbs in whole or in part; (3) the records of all discontinued international organizations as well as non-current records of existing international bodies; and (4) the records of international concern and importance, prominent among these being the military and similar records of aggressor nations that have been defeated through the joint efforts of the United Nations. Among the essential functions suggested by the National Archives for the proposed international body were: appraisal of international records proposed for disposal; developing procedure for disposal of records as soon as they have outlived their usefulness; an advisory service to the offices of the United Nations and other international agencies in connection with the administration of current records; research on the background of current problems to be performed at the request of international agencies and technical service in connection with archival questions. It will be seen that only a part of the objective embodied in the proposal has been realized in the formation of the United Nations Archives.

China

National Peking University.—The Graduate School and Research Institute holds in its custody a huge archival collection. The archives of the Ming (1368-1644) and the Ch'ing (1644-1911) dynasties alone total about half a million pieces. It has also the archives of Tuang-fang, an influential official of the late Ch'ing period and that of the Army Department in the Republican era. All the documents have been sorted and classified into categories. The Institute had made good progress in cataloguing and publications till July 1937 when it had to move from place to place on account of Japanese invasions.

A detailed note on the National Palace Museum of Peiping will appear in the next issue of the *Indian Archives*.

Japan

From a note published in the *American Archivist* (October 1946) it appears that the Japanese records repositories were the worst sufferers during the war. There is at present no central archives repository or archival administration in Japan. Of old records, those that

survived the earthquake of 1923 have been completely reduced to pulp in the bombing of Tokyo.

British Isles

Bodleian Library.—The new building of the Bodleian Library in Oxford was officially opened by the King towards the end of 1946. It will be recalled that the building was designed by Sir Giles Gilbert Scott, and its foundation stone was laid by Queen Mary in 1937. The stack-area has been designed so as to meet the storage requirements of the Library for the next 200 years. It is situated at the centre of the building and is surrounded by administrative and reading rooms. Provision has been made for an exhibition gallery which runs along the south front of the ground floor. The contents include 16th and 17th century portraits and manuscripts relating to the British Royal House. The earliest of the manuscripts is a translation from Saint Gregory by King Alfred written about 895, some of it being possibly in Alfred's own hand. It is learnt that the new building is primarily intended for modern studies, while the old building will continue to be the centre of the study of the humanities.

Public Record Office, London.—Acquisitions for 1945 include: (1) Visitor's Book, Windsor Castle, 1902-10 (Privy Purse Office); (2) Secretary's Department, In-Letters (Admiralty); (3) Deed of declaration under the Property Act 1925 re: Barker Moor, Cumberland (Ministry of Agriculture and Fisheries); (4) Letters Patent, 1834-1882 (Colonial Office); (5) Writs of election for Members of the Parliament, and Scottish Peers for the 36th Parliament (Crown Office); (6) Embassy and Consular Archives; Russia (Libau), Letter Books, 1830-1915; Miscellaneous 1896-1939 (Foreign Office); (7) Enrolment Books, 1941-42 (Supreme Court of Judicature); and (8) Sign Manual warrant bearing the royal assents to the marriage of Her Royal Highness Princess Maria Alexandria Victoria to His Royal Highness Prince Ferdinand of Rumania (from a private holder).

The collection of historical documents which were sent for safe custody to Somerset during the war years have recently returned and have once again been opened to public view in the Museum of the Public Record Office. Among the most important exhibits are the Domesday Book; Chancery Rolls dating from 1199 to 1934; the first Charter Roll for the first year of King John (1199-1200), a valuation of ecclesiastical property in England and in Wales in 1535 decorated with portraits of Henry VIII; the illuminated ratification by Francis I, King of France, of a treaty concluded by him with the King of England, dated 'Amiens, 18 August 1527'; a charter of William, King of Scots restoring to Robert de Brus the lands which he and his father held

in Annandale, and numerous other manuscripts bearing the seals and signatures of a long line of kings and queens of England.

The Public Record Office has promised to send a note on its history and evolution for publication in the *Indian Archives*. Another item of news that will interest readers is the conferment of knighthood on C. T. Flower, Deputy Keeper of Records and a well-known authority on medieval history.

Scottish Records.—The Keeper of the Records and Registers of Scotland reports several items of Indian interest in his custody. All these were found among the papers of Professor John Bruce, the Historiographer to the East India Company. They are included in the Hamilton Bruce collection. These are: (1) Manuscripts of Annals of the East India Company; (2) Draft letter to Mr. Dundas on the French projects of conquests of India, 13 April 1799; and (3) Manuscript of the historical view of plans for the Government of British India. It is also learnt from him that the Diary of North Dalrymple, afterwards 9th Earl of Stair, describes part of his military career in India in early 19th century. The Diary is now in the custody of the Earl of Stair at Loch Inch, Stranraer.

British Museum.—The trustees of the British Museum have been enabled, by a grant from the Goldsmith's Company, to purchase from the Phillipps Library the original inventory of part of the effects of Henry VIII, including the King's plate jewellery and ordnance. With the aid of a similar contribution from the Friends of the National Libraries, the Museum has purchased the account book of John Howard, later the first Duke of Norfolk of the Howard line. Other acquisitions include the vellum roll of disbursements of the Keeper of the Great Wardrobe of Edward III for 1333-34, the 14th century chartulary of Dereham Abbey, Norfolk, and the Lacock Abbey copy of Magna Carta (the third and final revision). The last is a present from Miss Talbot and has been sent on loan to the Library of Congress, U.S.A. for exhibition.

A grant from the Treasury and a contribution from the Pilgrim Trust has enabled the Museum to purchase the whole music library of Mr. Paul Hirsch, the most complete collection of musical scores in private collection. The library contains first editions of classical and pre-classical composers now no longer obtainable and a complete series of operatic orchestral scores from 1600 to the present day.

Dr. Robin Ernest William Flower, Deputy Keeper of Manuscripts from 1929 to 1944, died on 16 January, 1946. His death will be an irreparable loss to scholarship and in particular to Celtic studies. Among his works mention may be made of *Catalogue of Irish Manuscripts in the British Museum*, Vol. 2.

The Library of Salisbury Cathedral.—The library which dates from 1445 recently celebrated the 500th anniversary of its foundation with an exhibition of some of its rarest books and manuscripts. The principal objects of interest on display include the copy of the Magna Carta, 1215, one of the four extant; a 9th or 10th century copy of Bede's *De Temporum Ratione*; an autograph survey of the Cathedral, dated 31 August 1668, by Sir Christopher Wren; Caxton's translation of the Golden Legend, printed by Wynkyn de Worde in 1493, and Melancthon's copy of Erasmus's Annotations on the New Testament, Basle, 1519.

Aslib.—The Association of Special Libraries and Information Bureaux, better known as *Aslib* came into existence as a result of a conference called in 1924 to provide an opportunity for discussion of certain common problems by experts engaged in the collection, treatment and dissemination of information in various branches of library and bibliographic activity. It was incorporated under the Companies Act in 1927. The first task before the *Aslib* was the compilation of a *Directory to Sources of Specialized Information*. It was published in 1928 and at once came to be regarded as the 'first and most important European Directory'. The work was financed by the Carnegie United Kingdom Trustees. The function of the *Aslib* consists in keeping up to date the information contained in the Directory, contacting bodies engaged in preparation of bibliographies, organizing annual conferences for discussion of problems connected with special librarianship, compiling quarterly lists of books on scientific and technical subjects (*The Aslib Book List*), in short, acting as a clearing house of information on sources of specialized subjects of inquiry.

In April 1942 the *Aslib*, with the help of the Royal Society, the Rockefeller Foundation and British Industry, organized a microfilm service whose main function was to supply microfilm and paper enlargements of scientific and technical periodicals from enemy and enemy-occupied countries which would not otherwise have been accessible to research scholars. Under this scheme China alone was supplied weekly by air with microfilm copies of over 160 British periodicals. The microfilm library thus created contains some 14,000 issues of 500 items. On the termination of the war the *Aslib* microfilm service has been transferred to the Royal Society of Medicine for use in their scheme for the rehabilitation of medical libraries. But the *Aslib* still continues to serve non-medical demands for documentary reproduction.

Two other services organized by the *Aslib* ought to be mentioned: the service it renders by undertaking to translate for institutions and libraries, articles or treatises on technical subject, and that rendered by it to the special librarians through the medium of its conferences.

The *Aslib* has also started a quarterly entitled "the *Journal of Documentation*", the object of which is to pool the knowledge accumulated by experts in many fields. Mention may be made of the December 1945 issue which contains three articles of special interest: *La Documentation en France, 1940-5* by Suzanne Briet; *La Bibliothèque Nationale, 1940-4* by Madeline Chabrier, and *Choix de Bibliographies publiées en France, 1939-44* by the Ministère de l'Éducation and the Bibliothèque Nationale. The October 1946 issue contains an excellent article on the chief Italian sources of information contributed by Dr. W. O. Hassall.

Historical Manuscripts Commission.—The microfilming of manuscripts as arranged by Dr. Esdaile's Committee is continuing. The papers recently taken up include the Sackville papers, Earl of Leicester's Manuscripts from Holkham and the Vernon Smith collection. All these manuscripts are being copied at Cambridge. The Commission has outlined a proposal for compiling a survey of its reports for the past 75 years. It will consist of two parts: Part I containing a series of separate descriptions of the reports according to their numerical order and, Part II containing a tabular analysis of the reports which will show both periods of time and subjects. It is learnt that the 22nd Report of the Commission is ready.

Institute of Historical Research, London.—The Institute became the venue of the first meeting of Anglo-French historians which took place from 24 to 29 September 1945 under the auspices of the British National Committee of the International Historical Congress. In the absence of M. Petit-Dutaillis, M. Fawtier led the French delegation which included M. Fliche of the Faculty of Letters of Montpellier, M. Bourgin of the Archives Nationales, and M. Morazé of the École des Sciences Politiques. Among English representatives were Dr. Cam, Sir John Clapham, Professor Clark, Professor Galbraith, Mr. Mcfarlane and Dr. Tawney, to mention only a few names. In Petit-Dutaillis's paper which was read by M. Fawtier the meaning of the term 'commune' was traced from the 12th century to the time of the Paris Commune of 1871. Professor Tawney discussed some aspects of 17th century agrarian history, while M. Fliche described the steps taken to systematize and raise the standard of regional studies in France. The question of reviving the International Historical Congress was discussed at a plenary session.

Mr. Alexander Taylor Milne, M.A., F.R.HIST.S. has been appointed as Secretary and Librarian of the Institute.

U.S.S.R.

Rehabilitation and reorganization of archives have been a principal item of intellectual regeneration under the Soviet régime. In the pre-

Soviet period, that is, during the rule of the Tsars, all archives, secular and ecclesiastical, central and local, were strictly confidential. Since utilization of archives for inquiries, administrative or academic, was not permissible, the entire administration of archives was in a chaotic condition and nothing was done to guard them against ravages of time. With the Revolution in 1917 archival history of Russia enters into its modern phase. Lenin fully realized the importance of archives for academic and administrative purposes and in June 1918 issued his famous 'Decree on the reorganization and centralization of archival affairs'. In subsequent issues we intend to publish a complete history of archives administration in the U.S.S.R.—and translate articles and extracts from the *Arkhivnoe Delo*. Documents lying scattered throughout the territories of the U.S.S.R. were surveyed, rehabilitated and preserved in different places under the control of a central organization within 20 years of the Revolution. Laboratories with the most up-to-date equipments were installed at a number of archival repositories. An Archival Historical Institute was opened to train and turn out archivists. The staff of the Central Archival Organization are men with high and specialized qualifications. By the time World War II broke out nearly 100 archival collections had been printed and published by the Central Organization.

France

Archivists and librarians all over the world will regret the death on 8 November 1946 of Henri Lemaître, an old member of the Bibliothèque Nationale, at the age of 65. He was the 'Bibliothécaire Honoraire' of the Library, President of the Association of French Librarians and editor of the *Revue des Bibliothèques*. He was also actively associated with the International Federation of Library Associations. The Library Association, England elected him an Honorary Vice-President in 1930.

On 13 November 1946 an exhibition of photographs was opened at the Bibliothèque Nationale under the auspices of the Confédération française de la photographie. It is further learnt that the Library has built a very elaborate camera and other auxiliary equipment to facilitate the copying of books and manuscripts in its custody. The other programmes before the Library include organization of a system of inter-library loans of microfilm copies of books and records.

Sweden

Sweden has earned the distinction of being the first country to plan and build an archival building suitable for the atomic age. Through the courtesy of the *American Archivist* we publish here a brief account of the new municipal archival building of Stockholm City. All the stack areas of the new building are built in a rocky hill, many feet below surface level. Public entrance is by means of two

elevators entered at the top of the peak and the truck traffic enters by way of a vehicular tunnel with openings in the side of the hill some distance from the top. Above ground level is a single floor containing the main search room, study cells, administrative offices, and staff work rooms. There is also a seminar room for teaching purposes. Provision has been made for usual facilities for photographic laboratories and document repair. Five large stack and storage floors burrow from 10 to 60 feet below the surface, the total storage capacity being about 300,000 cubic feet. The plans for the building are now available with the Committee on Archival Buildings of the Society of American Archivists.

From a review of the Annual Report of the Swedish State Archives for 1944 published in the *American Archivist* (October, 1946, p. 371) it is learnt that the late Dr. Helge Almquist who headed the archives establishment from 1926 to his death on 29 February 1944 was succeeded by Professor Bertil Boëthius on 1 May 1944. During the period 1926-1944 many important accessions were received, including those obtained in the extensive exchange of archives that took place in 1929 between Sweden and Denmark. Another important step taken by Dr. Almquist was to secure an increased grant for archival publications. The editing and publishing of some materials has continued under Dr. Almquist's successor. Visits by researchers to the archives in 1944 increased to 17,792 and 42 applications were received from foreign scholars seeking permission to use Swedish archives. Official inspections were made of a number of archival depositories and recommendations were made by the State Archivist to improve their methods and organizations.

U.S.A.

The National Archives, Washington.—The recent acquisitions of the National Archives include records of the U.S. Ballot Commission; records of the New Delhi and Stockholm offices of the Office of Strategic Services; enemy motion pictures captured in Europe and the Pacific; Journals of the Postmaster General, 1879-1940; records of War Relocation Authority, 1942-46; records of the American War Production Mission in China, 1944-45; records of the Joint Committee to investigate the Pearl Harbour attack, 1945-46; and additional surrender documents signed by various Japanese field commanders, 1945. The National Archives has started to compile a series of guides to the archival materials and publications relating to the Federal Government's experience in World War II. The programme is under the direction of Philip M. Hamer, Records Control Officer of the National Archives. He is being assisted by Christopher Crittenden of the North Carolina Department of Archives and History. The programme includes the publication of a *Handbook of the Federal World War II Agencies and their records* and the drawing up of inventories of

important records and bibliographies and lists of published and unpublished materials of special interest. Among the recent publications of the National Archives are an essay on the *Appraisal of Current and Recent Records* by G. Philip Bauer and a revised edition of *How to Dispose of Records*.

Society of American Archivists.—The Society held its 10th annual meeting jointly with the American Association for State and Local History in Washington, D.C., on 24 and 25 October, 1946. The opening session on 24th morning, presided over by Dr. Waldo G. Leland, Executive Secretary of the American Council of Learned Societies, was devoted to the discussion of the utilization of archival materials. Of the two papers read, one by Dr. Hamer, Records Control Officer of the National Archives, outlined the project entrusted to him for the compilation of guides to the records of World War II. In the other paper, Mr. Herbert Angel, Director of the Office Methods, Navy Department, presented an indictment of the scholars and students for their non-use of records. It was pointed out by him that in the ten years since the formation of the National Archives only a handful of scholars had laid under contribution the rich resources of that organization. The afternoon session of the first day was devoted to the discussion of wartime developments in two technical records fields—Cartographic and Geographic records and photographic records. Mr. Herman Friis of the National Archives read a paper describing the accomplishments of the Federal Government in the production of cartographic and geographic intelligence data. The paper by Mr. Donald Holmes, of the Library of Congress, detailed the multifarious ways in which American industry and the military forces used photography.

In the presidential address delivered on the 24th evening at the American University, Dr. Solon J. Buck eloquently argued the case for the establishment of an international organization dedicated to the task of 'preserving, improving and promoting the effective utilization of man's cultural heritage throughout the world'. He made the specific recommendation that the Society of American Archivists should call a world congress of archivists to consider the formation of an International Archives Council. Dr. Buck's proposals were endorsed in resolutions passed at the business meeting of the Society held on the 25th afternoon. The address itself has been published in the January issue of the *American Archivist* under the caption 'Archivists' One World'.

The 25th morning session was devoted to the discussion of the rôle of records in administration. Among those who participated were Dr. W. C. Grover, Chief, War Department Records Management Section, and Dr. Fritz Morstein Marx, Assistant to the Director of the Bureau of the Budget. In the course of his address Dr. Marx laid

stress on the need of greater co-operation between archivists on the one hand and administrators on the other.

The status and need of training for archivists formed the theme of the dinner meeting on the 25th evening. A review was made by Dr. Karl Trever of the influence of the Society's Committee on Training on the establishment of formal academical training in archival administration, in the course of which he paid warm tribute to Dr. Ernst Posner for the significant rôle he has played in the organization of a regular training course at the American University.

At the annual business meeting Dr. Buck was re-elected President, William B. McClain was elected Vice-President and Dr. Posner nominated Council Member.

Alabama.—Alabama State Department of Archives and History was established by an Act of the State Legislature in 1901. Its objects are to preserve the official archives of the State, to bring together historical objects for a State Museum, to collect portraits of men connected with the State's history and to assemble an historical reference library. The official archives date back to 1819. There is a collection of old maps, some as old as 1775. There are files of newspapers from 1800. Its present Director, Mrs. Marie Bankhead Owen is engaged in studies relating to India.

Oregon.—Oregon State Library has a Division of Archives which stores the non-current records of the State. Private manuscripts are not classed as archives and as such stocked in the library side.

Pennsylvania.—By a legislation of 1903 provision for administration and appropriation for archives were effected. Pennsylvania's records go back to 1682 and a great many have been published under the series 'Pennsylvania Archives'.

Franklin D. Roosevelt Library, New York.—Founded by Franklin D. Roosevelt during his last term of Presidentship and started with the President's private and family archival collections, the Roosevelt Library has now grown into international eminence. Throughout his life Franklin D. Roosevelt was a collector of historical material including early Americana, books, prints and manuscripts relating to the United States Navy and his native country. Since his death Mrs. Roosevelt is carrying on the work of enriching the Library. Only two among its precious collections may be mentioned to illustrate its value for archivists and historians. There are over 12,000 documents relating to the public and private activities of the Roosevelt family (1715-1928). The naval history manuscript collection contains over 1,000 items and covers the period 1775-1918. Both the series are open to research workers.

Course in the History and Administration of Archives—The School of Social Sciences and Public Affairs of the American University, Washington, D.C., has in collaboration with the National Archives organized and opened a course on archives. 'This course will be concerned with the history and present state of archival activities in the principal countries of the world, especially with those in the United States, including State, local, and institutional as well as Federal activities, and with the principles and practices of archives administration.' The heads of instruction for the first two semesters deserve recital:

First Semester: The development of archives administration in Europe and in the United States; Archives administration in England; Archives administration in France; Archives administration in Germany and Austria; Archives administration in Italy and Spain; Archives administration in Eastern Europe (Russia, Poland, Balkan Countries); Archives administration in the British Dominions; Archives administration in Latin America; Archival developments in the Federal Government of the United States; The movement for a National Archives of the United States; The National Archives, 1935-1945, and its present organization and functions; State and local archives and the work of the Historical Records Survey; Institutional and business Archives; The administration of manuscript collections in Europe; The administration of manuscript collections in the United States.

Second Semester: The history of the literature of archives administration; Principles and nomenclature of archives administration; Official status and functions of a public archival agency; Internal organization and recruitment and training of personnel; Buildings and equipment for archival agencies; Appraisal, assembling, and elimination of archival material and historical manuscripts; Preservation and rehabilitation of archival material and historical manuscripts; Arrangement of archival material and historical manuscripts; Description of archival material and historical manuscripts; Reproduction, publishing, and editing of manuscript material; Service and use of archival material and historical manuscripts; Special types of archival materials; The protection and preservation of local and semi-public archives.

The Library of Congress, Washington.—The beginnings of this library have been traced back to the days of the War of American Independence (1774-1783). Its transfer to Washington and its formal inauguration took place in 1800. The Manuscripts Division was established in 1897. It is enormously rich in the political history of USA, containing papers of practically every President till recent times and the whole of the records of the Continental Congress which established the Union. The Library also possesses and regularly acquires foreign manuscripts or their microfilm copies. Its quest for documents of

Oriental interest is particularly noteworthy. In 1941 the National Library of Peiping transferred to this library nearly 3,000 rare Chinese items. The Chinese Government and the National Library of Peiping have permitted the Library of Congress to retain microfilm copies of any of the items before they are returned to China. Among the 1945 acquisitions of the Library of Congress are counted nearly 1,400 Arabic manuscripts secured from Near Eastern countries. More recent accessions include Court records of the Bishopric of Zebu, Philippine islands (1653-1681); the Acts of the Municipal Council of Manila (1786-1787); typescript translations into English of 16 documents in Russian archives relating to the Russian American Company and to the cession of Alaska to the United States; Letters and notes pertaining to William Blake (1804-1880); 200 papers of Andrew Ellicott (1784-1829); original diary of Thomas Worthington (1805-1807); and additional manuscripts relating to George Washington, W. T. Sherman, Woodrow Wilson and others. It is learnt that Abraham Lincoln's papers which were formally presented to the library by his son, R. T. Lincoln, will, under the terms of the gift, be available to public after summer 1947.

The library has undertaken to establish a clearing house of information on government motion picture films and to afford necessary facilities for their distribution among agencies and institutions requiring them. The Print and Photographic Division has received for custody the office of War Information Photograph Collection. A select list of photographic negatives in the Division has been compiled under the title, *Pictorial Americana*. The list describes over 750 negatives of American cities, scenes of battles, of eminent personages, presidential inaugurations, railroads, ships and many other subjects. Other publications include *Annual Report of the Librarian of Congress for the Fiscal year ended June 30, 1945*; *The Library of Congress, Quarterly Journal of Current Acquisitions*, Vol. XI, No. 1; and *A Guide to Manuscripts Relating to American History in British Repositories Reproduced for the Division of Manuscripts in the Library of Congress*. The present Librarian of the Congress is Luther M. Evans. The Division of Prints and Photographs is in charge of Paul Vanderbilt.

Canada

The Public Archives, Ottawa.—In the Public Archives of Canada there are many collections of public and private documents covering the whole field of Canadian history in all over 25,000 volumes. Canada's history goes back to the middle of the 16th century and its archives belong both to the French and English periods of imperialism. To fill up gaps in their own archives as well as to supplement them the Canadian Government carried out a systematic exploration of foreign depositories like the Public Record Office in England and the National Archives of France, and obtained transcripts of documents from

abroad. The process still continues. But already it has been claimed that the history of Canada can be written from the material obtainable at Ottawa.

Under an Order in Council issued on 20 September 1945 a Committee on Public Records has been set up consisting of the following officials; a representative to be named by the Minister of National Defence, representatives to be named by the Ministers of Air, Public Works, Munitions and Supply, Reconstruction, Labour, and the Secretary (External Affairs). The order enjoins that the Canadian Historical Association shall be asked to recommend two professional historians to serve in an advisory capacity on the committee and that the committee shall, as part of its duties, examine and report on the preparation by departments and agencies of Government of suitable accounts of their wartime activities, and, the implementing of the approved recommendations of the Royal Commission on Public Records of 1914 regarding the establishment of a Public Record Office. The committee is further to keep under constant review the state of the public records and to consider, advise and concert with departments and agencies of the Government on the organization, care, housing, and disposal of public records.

Saskatchewan.—Though a young province of Canada and though its records are not of much antiquity, Saskatchewan has in a way set an example for more ancient and bigger countries to follow. The attention of provincial legislators was attracted to the problem and importance of archives during the first World War and in 1920 the provincial legislature put on the statute book, *The Preservation of Public Documents Act*. It defined 'Public Document', provided against destruction of non-current records by officers holding them in custody on their own authority, and authorized the provincial executive to transfer to 'the archives of the province' any document or class of documents. There was no central archives repository at that time and the principal objective of the Act could not be fulfilled during the first 15 years (1920-35). The move for an archives repository was finally taken up by the provincial University in 1936 and next year the Historical Public Records Office was established with the University Professor of History as the Archivist. Regular transfer of non-current records started immediately and calendaring and indexing of transferred records was also introduced. A more comprehensive statute was passed in 1945. By the Archives Acts 1945, two repositories, one at the University and the other at the Legislative Library, were established. The administration of non-current archives is now the joint concern of the University representatives and the representatives of the provincial executive. The present Archivist of Saskatchewan is Professor George W. Simpson, Head of the Department of History at Saskatchewan University.



BOOK REVIEWS

Historical Records of the Survey of India, Vol. I, 18th century, by Colonel R. H. Phillimore, C.I.E., D.S.O. (Published by order of the Surveyor General of India by Central Publications Branch, Government of India, New Delhi, 1945. Pp. xx+400+(16). Illustrations. Maps. Rs.30 or £2-7-3.)

WE have here the first volume of an important history, on an ample scale, dealing with an old and major branch of the activities of the Indian government during the British period, a branch regarding which little has previously been written except of a technical and scientific nature. It takes the story of the Indian surveys from the beginnings about 1765 to the close of the 18th century. The second volume, already in the press, will cover the period 1800-1815; and the third, now in active preparation, will continue the record to 1830, by which date the work had been integrated under a Surveyor General of all India, the Revenue Survey had been started, the Great Trigonometrical Survey established, and the great Atlas of India begun.

In the present review we are concerned not with the many applications of science to the art of making maps, but with the interest and assistance of this book to the archivist and historian. The measure of that interest and assistance is great indeed. In the first place, Colonel Phillimore has laid his structure upon the sure foundation of the original archives, and the result of his labours proves once again the value of work so constructed. Beginning with 700 volumes of the old correspondence of the Great Trigonometrical Survey, from 1790 to 1883, he passed to a huge quantity of other Survey records then indifferently preserved at Calcutta. After this painstaking examination of purely departmental material, he visited the record offices at Calcutta, Madras and Bombay; the Imperial Record Department and the Imperial Library; the India Office and the British Museum; and the libraries of the Royal Society and the Royal Astronomical Society.

The cream of his gatherings from this vast field have been arranged in twenty-two chapters. The Bengal surveys receive three chapters, the Madras surveys two and the Bombay surveys one. There are three chapters on maps as such: maps of India, of Bengal, and of Madras and Bombay. Subjects of single chapters include early revenue surveys, professional methods, survey instruments, map construction and preservation, the Surveyor Generals, surveyors, pay and allowances, civil establishment, inhabitants and officials. Two chapters describe astronomical control, while a general narrative contained in the first chapter serves as an introduction to the whole

work. Last but certainly not least come nearly a hundred pages of biographical notices, which contain a wealth of hitherto uncollected material on the lives of old-time celebrities such as Major Ranfurly Knox; Lieutenant-Colonel Robert Kyd and his nephew Lieutenant-General Alexander Kyd, who gave his name to Kyd Street in Calcutta and Kydganj at Allahabad; Jean Law de Lauriston; Colonel Colin Mackenzie; Major-General Claud Martin; and Father Anthony Montserrat—to name a few only.

In the space at our disposal it is not possible to summarize, even very briefly, the contents of this massive volume, every page of which is crammed with facts supported by numerous footnotes indicating the sources used. The pre-Survey history of Indian topography is largely, in the north and centre of the peninsula, that of the work of the Jesuit missionaries, in particular Fathers Montserrat, Tieffenthaler and Wendel, though the Mughal rulers displayed considerable interest in the precise measurement of routes. Following these came the French geographers such as Bourguignon D'Anville and Anquetil-Duperron. The main story starts when Clive commissioned Rennell to make him 'a vast map of Bengal'. By 1773 that eminent servant of the Company had completed his survey of their possessions in Bengal and Bihar up to Allahabad and the frontiers of Oudh and to the foot of the Garo and Khasia hills and to Chittagong. To the southward the route from Kalpi to Poona was surveyed in 1775 by an entirely mysterious clergyman, the Rev. William Smith; and many military routes in the vicinity of Trichinopoly, Tinnevely and Madura had already been put on paper by that date; but the Nawab of the Carnatic was unwilling to throw his dominions open to foreign mapmakers. During the wars of 1772-83 many more military routes were explored, and much progress was made during the peace that followed, particularly by two civilian specialists, Reuben Burrow and Michael Topping. By the end of the century the work in the south, which had received an impetus from the personal interest shown by Cornwallis and Mornington during their visits, was set on a firm basis, in such able hands as those of Colin Mackenzie, William Lambton, Charles Reynolds, and Robert Hyde Colebrooke. Of the trials, troubles and triumphs of all these officers Colonel Phillimore paints a profoundly interesting picture, often drawn in great part from their own field-books, correspondence and diaries.

It should be added that there are reproductions of several curious and attractive old maps and of a number of contemporary portraits. Some of these are in colour. The workmanship of both text and illustrations is of the high standard that one expects from the Survey of India, in whose own establishment the printing and block-making has been done. Fortunate is the Department which commands such resources as well as such a historian!

H. BULLOCK.

List of Officers of the Bengal Army 1758-1834, Part III, by Major V. C. P. Hodson, Indian Army (Retired List). 1946. (London, Phillimore & Co., Ltd., 120 Chancery Lane, W.C. 2. £2-2-0.)

PARTS I and II of this list were published in 1927 and 1928, and are now out of print. Part III covers the officers whose surnames begin with the letters L to R. Part IV is now in the press and should appear early in 1947. Completing the alphabet, it will also contain appendices such as lists of 'minor cadets' (i.e. child officers) and 'Local' (i.e. non-regular) officers, with a general index to the entire work, which deals with about 7,000 persons.

The subjects of this immense but concise biographical dictionary are all the persons who served as officers in the Bengal Army between 1761 (when the earliest known army list of that Presidency was compiled, in manuscript) and 1834, to which date run the lists in Dodwell and Miles' useful printed *Alphabetical List* (London, 1837).

In respect of each such officer Major Hodson gives the following data, when applicable and ascertainable:—

- (i) date and place of birth and/or baptism;
- (ii) parentage, or other known relatives if his father has not been identified;
- (iii) date and place of marriage, and wife's name and parentage;
- (iv) date and place of his and his wife's deaths;
- (v) relationship to any other Bengal officers and their wives;
- (vi) dates and details of all commissions, promotions, titles and dignities;
- (vii) near relationship to any famous persons;
- (viii) military appointments held for any length of time;
- (ix) war services, and campaign medals;
- (x) location of portrait, and artist thereof;
- (xi) any matter of special interest or of an odd nature;
- (xii) references to special sources of information which have been drawn upon.

A rider should be added: the compiler does not usually repeat information already easy of access in the *Dictionary of National Biography* or *Dictionary of Indian Biography*, nor does he claim to give full details of all the wives of all his subjects.

To bring this mass of historical and genealogical facts within the covers of four octavo volumes—Part III with over 800 pages is a thick but not unwieldy book—has needed skilful compression, which has been achieved rather by careful planning of lay-out and typography than by the over-use of abbreviations, most of which are self-explanatory. As a result, the List though strictly a work of reference is quite readable in itself.

Even a cross-section of the lives of so many active and versatile men would be too big a slice to display in a review. We can do no

more than take a series of random dips into this rich mixture and note what they bring forth as a sample of the whole. We will thus examine only a few pages of the earlier part of the book, and compare some of the entries there with others which come later.

Colonel John Laughton (1811-1861) of the Engineers served in Persia for some years and married a Persian lady. His sister married the celebrated Sir Thomas Erskine May, afterwards created first Lord Farnborough. General Henry Lawrence (1790-1887) is an example of longevity. His first active service was in a severe action fought by the *Astell* Indiaman on her voyage out in 1810, a story which we like to think that he survived to tell to many persons still living. He was no relation to Sir Henry Montgomery Lawrence, who is also in the List. Others who reached a patriarchal age were Captain Alexander McMahan (1791-1887); Ensign Harry Nisbet (1794-1890) who after entering the Bengal Engineers in 1814 transferred at once to the Bengal Civil Service from which he retired in 1840 and enjoyed a pension for half a century; Lieut.-Colonel William Price (born 3 Sept. 1788, died 7 Feb., 1888), who seems to have been the Nestor of them all and drew a pension for 54 years; and General Robert Napier Raikes (1813-1909). But the holder of the pensionary record seems to have been Ensign Thomas McMahan (1809-1894) with 63 years 11 months, an example which every government servant will regard with envy and admiration.

Captain W. E. Leadbeater (1763/4-1809) died through an odd accident: 'he was playing with the trigger of his fowling-piece, when the flint struck and he received a blow from the recoil which proved fatal within six hours.' Playing with triggers has often proved fatal to player or bystander, but it is not often that a man kills himself with the wrong end of his own gun. Major Joseph Leeson (1796-1848), 42nd Bengal Native Infantry, grandson of an Earl of Milltown, left descendants who claimed that title until the last representative of his line died without male issue at Jubbulpore some forty years ago. In the female line there are still many persons, now in quite humble circumstances, amongst whom the baptismal name of Leeson is found. Colonel Matthew Leslie (died 1778) of the Bengal Infantry started his military career as a surgeon in North America, where he saw much service. Becoming a combatant officer, he rose to high command in the East Indies, and is said to be buried in an uninscribed tomb at Rajgarh in Chhatarpur State, Central India.

Captain Charles Isaac Levade (1784-1823) was one of a number of Swiss officers in the Company's service in Bengal: some others were Captain John Wolfgang Molitor (died 1759) who fought at Plassey and was killed at the storm of Masulipatam; Lieut.-Colonel Frederick Rodolphus Muller (1767-1815), son of an officer in the service of Frederick the Great; and Lieut.-Colonel Antoine Louis Henri Polier (1741-1795), the distinguished Orientalist, who was the first European to obtain a complete copy of the Vedas and whose portrait appears in

Zoffany's two famous paintings of 'Colonel Mordaunt's Cock Match' and 'Claude Martin and his Friends'. Polier had a most adventurous career in India, and was assassinated by robbers near Avignon through, it is said, 'his oriental display of wealth.' Lieutenant William Douglas Littlejohn (1807-1891) was one of a number of officers who entered the Church after retiring from the Bengal Army: he was pensioned in 1835, became a priest in 1838, and was a vicar in Oxfordshire for 35 years. Other clergymen noticed in this volume include Captain Richard Fortescue Purvis (1789-1868), who received the Army of India medal for the Nepal War, retired in 1820 and was vicar of Whitsbury for 44 years; Lieutenant Thomas James Rocke (1803-1881), later a parson at Exmouth for 34 years; Second-Lieutenant Eardley Wilmot Michell (1813-1885), a clergyman for 47 years; Lieutenant James Oldham (1804-1884), sometime incumbent of St. Luke's, Birmingham; and Captain Arthur Crowe Rainey (1811-1891). Most of these retired early from the army, and lived to a ripe old age.

Another officer who displayed an interest in religion, though in a different fashion, was Major Arnold Nesbit Mathews (1765-1820), of the Bengal Invalid Establishment, formerly of the Artillery. Much about him is veiled in mystery. There is doubt as to his parentage, but his grandson, a Roman Catholic priest, had it that the Major was the eldest son of Francis Mathew (*sic*), M.P. for Tipperary and afterwards first Earl of Landaff; and claimed the peerage accordingly. Major Mathews, who is said to have been baptized a Catholic but subsequently to have embraced Islam, published in 1809 a translation in two volumes of *Mishkat-ul-Masa Bih*; and on his retirement purchased an estate at Chandernagore, where he died. His wife is also something of a mystery. When he married her at Fatehgarh in 1806 she was described as 'Countess Elizabeth Francesca Povoleri, elder daughter of Marchese Domenico Povoleri by his wife the Contessa Piovone di Vicenza'. She was presumably related to Lieut.-Colonel Charles Wills Robert Povoleri (1781-1843) of the Bengal Invalid Establishment; and to Major Hodson's account we may add that in 1890 the grandson aforesaid adopted the name and title of Povoleri, but dropped them four or five years later.

Lieut.-General Sir John Hunter Littler, G.C.B., (1783-1856) was one of the most able Bengal officers. His second name came from his maternal grandfather, John Hunter, a Director of the East India Company. General Littler, who figures in the *Dictionary of National Biography*, saw fighting both by land and sea, notably against Holkar in 1805-06, at Java in 1811, at Maharajpur in 1843, and as a divisional commander in the First Sikh War. He was a member of the Supreme Council of India, 1848-1852, and Deputy Governor of Bengal, 1849-1852. He died in Devonshire four years after leaving India. Lieutenant Henry Lock (1798-1824), who died whilst serving with the Nizam's Army at Mominabad, was one of the very few Bengal officers

to wear the Waterloo medal, having been present at that battle as an ensign in the 51st Foot. He came of a naval family. Major Charles Long (died 1786) was one of the Company's early officers, most of whom had transferred from the King's service. After fighting against Mir Muhammad Kasim in 1763 and receiving several wounds, and at the battle of Katwa, he returned to the King's Army and was appointed an officer of Invalids at Jersey in the Channel Islands, where he was overtaken by the tide in the course of a journey and drowned.

Another officer drowned was Captain Ninian Lewis (1802-1838), one of the numerous officers in this List to have met death by the loss of a ship with all hands. On at least one occasion more than a dozen Bengal officers were lost in a single ship, and it would appear that the Government usually followed the economical course of presuming that their deaths occurred—and their entitlement to pay ceased—from the date the ship sailed. Lewis with his three children embarked at Singapore for England after the death of his wife, and were never heard of again.

Captain Edmund Emilius Ludlow (1804-1882) was son of that Surgeon Samuel Ludlow after whom 'Ludlow Castle'—formerly the Delhi Club, now headquarters of Delhi Rationing, and a well-known Mutiny landmark—is named. Major-General Sir James Rutherford Lumley, K.C.B., (1773-1846), was a distinguished officer who served continuously for fifty years in India, a record which was however easily beaten by General Sir William Richards, K.C.B., (1778-1861), whose service in India extended to 67 years. He settled at Agra and Naini Tal in his retirement, and married a Jat lady. Of another Ludlow, Major-General John Ludlow (1801-1882) it is recorded that 'the suppression of female infanticide and suttee in Rajputana was in good measure due to his efforts'. His younger brother, Major William Andrew Ludlow (1803-1853) was the artist of that remarkable coloured lithographic panorama of 'Bengal Troops on the Line of March' (1835), a copy of which hangs on the staircase of the United Service Institution at Simla.

Few Christian marriages can have been celebrated at Kabul, but Lieutenant David Lumsden (1812-1842) was married there in 1841, presumably by a chaplain attached to the army: less than a year later he and his bride were killed in the retreat from Ghazni. His elder brother, Captain John Richard Lumsden (1808-1841), died some six months previously from the bite of a crocodile when he was bathing at Kyaukphyu in the Arakan. Captain-Lieutenant Paul Niedrick (c. 1714/15-1790) was a Prussian from Koenigsberg. Other non-British officers, besides the Swiss who have already been mentioned, included the famous Major-General Claud Martin (1735-1800) of Lucknow; Ensign Joseph Quieros (c. 1788-1824), a son of Claud Martin's Portuguese clerk and executor; several Huguenots and other Frenchmen; and Lieut.-Colonel Isaac Pereira (1788-1847), presumably of

Jewish descent, from Jamaica. Captain William Moises (died 1805) may also have been of Hebrew extraction, as was Peregrine Treves, sometime Postmaster-General of Bengal, son of a London moneylender and protégé of the Prince Regent, who will doubtless figure in Part IV of this List.

Celebrities, bare mention of whose names is enough, include Ochterlony, Field-Marshal Pollock and Lord Napier of Magdala, and Sir Abraham Roberts, father of Field-Marshal Earl Roberts. Here also you will find the father of Charles Lord Metcalfe. Amongst the officers who were related to notabilities are Captain Charles Reddish (1778-1810) of the Invalid Establishment, illegitimate half-brother of George Canning, prime minister, by their actress mother; Cadet Charles Macdonald (1751-1795) and Captain John Macdonald (1759-1831), eldest and youngest of the five sons of Prince Charlie's Flora Macdonald—John married the eldest daughter of Chief Justice Chambers, wrote several books, and was a F.R.S.; Captain Nicholas Power Palmer (1808-1842), killed in the retreat from Kabul, whose son General Sir Arthur Power Palmer, G.C.B., was Commander-in-Chief in India sixty years later; and Captain James Oliver (1795-1843) whose mother was a natural daughter of the Duke of Hamilton. It is noteworthy that Lord Napier of Magdala's widow died as recently as 1930: this may be compared with the case of Major-General Sir William Nott, G.C.B., (1782-1845) of Kandahar fame, who married his first wife in 1805 and whose second wife died in 1901. Another long-lived lady was the wife of Major Thomas Riddell (1810-1854), who died in 1925 at the age of 95, having married as long before as 1848.

Lieutenant Norman William Macdonald (1807-1893) after having been cashiered from the Bengal Army became Governor of Sierra Leone, though in those days cashiering was supposed to disqualify from all future service, however humble, under the Crown; and Major Sir John Larkins Cheese Richardson (1810-1878) was Speaker of the New Zealand Legislative Council for the last ten years of his life. Captain John Joseph Nollekens (1735-1772) was a member of the famous Anglo-Dutch family of sculptors, being a son of 'Old Nollekens' and a brother of Joseph, both of whom are in the *D.N.B.* He was severely wounded at the battle of Patna in 1764 when in command of the European Grenadiers, and died at Chittagong in 1772. Others who came of artistic families were Cadet Henry Medland (born 1795), son of Thomas Medland, an artist and engraver who is in the *D.N.B.* and who was drawing-master at the Company's College at Haileybury; and Lieut.-Colonel George Augustus Percival Mee (1804-1850), whose mother was a well-known miniaturist also in the *D.N.B.* William Hickey's friend Benjamin Mee, brother-in-law of Lord Palmerston, is also in this List on the sole authority of the *Memoirs*, but as Major Hodson remarks it is doubtful whether in fact he ever received a Bengal cadetship, despite Hickey's categorical statement.

A merchant in Calcutta and later in London, he was a proprietor of the Bank of Bengal, and a Director of the Bank of England for several years. Anne Mee, the miniature-painter, had another son in the Bengal Army, Ensign John Edmund Mee (1807-1839), who died at Delhi during his first year of service and who is doubtless buried in the old cemetery beside the Lothian railway bridge, at the corner of the Magazine blown up in 1857.

Captain William Mercer (1755-1801) of the 5th Bengal Native Cavalry was killed in a duel at Ghazipur by the Hon. Andrew Ramsay, Commercial Resident there, a younger brother of the 9th Earl of Dalhousie and this closely related both to a later Commander-in-Chief and a later Governor-General. Colonel Roger Elliot Roberts (1753/4-1831) acted as second to Major James Browne in his duel fought in Hyde Park, London, on 10 August, 1787, with Sir John Macpherson, the former Governor-General. Another duellist was Lieut.-Colonel Charles Ryan (1782-1850), who was tried by the Supreme Court at Calcutta in 1806 for the murder of a brother-officer, Lieutenant John Corry, convicted of manslaughter, and sentenced to six months' imprisonment and a fine of a hundred rupees. Having thus purged his offence, he subsequently served with distinction in the Nepal and Maratha wars.

We have mentioned that Colonel John Laughton married a Persian lady. Another with a Persian wife was Lieut.-Colonel Henry Anderson O'Donnell (1758-1840), whose first wife was 'Domina Jan, a Persian Princess'; whilst Captain David Lester Richardson (1801-1865) married in 1821 the daughter of another Bengal officer, William Scott, by yet another 'Persian princess'. Lieut.-Colonel John Samuel Marshall (1793-1853), who was later removed from the service in undisclosed circumstances, married at Meerut in 1847 'Ty Moti, spinster, aged 35, daughter of a *Gosain* of Assam': she died a little over a month later.

Well-known names also include three of the Lawrence brothers; Brigadier-General Sir Henry Montgomery Lawrence, K.C.B., (1806-1857), of Lucknow; General Richard Charles Lawrence, C.B., (1817-1896), sometime Resident in Nepal; and Lieut.-General Sir George St. Patrick Lawrence, K.C.S.I., C.B., (1804-1884), whose interesting and attractive autobiography *Forty-three Years in India* still finds readers. Lieut.-General Sir Gabriel Martindell, K.C.B., (c. 1759-1831), made a great name in the Nepal war and is to be found in the *D.N.B.*; but why that compilation should provide a place for Major Sir George Parker, Bart., (1813-1857), cantonment magistrate at Cawnpore at the time of the Mutiny, is by no means apparent. The most unsuccessful military leader in the List is probably General Bennet Marley (1753/4-1842) who when holding a divisional command in the Nepal war was overcome by his responsibilities and misfortunes and slipped away secretly from his headquarters before dawn one

morning. He was, however, soon given the virtually sinecure post of Commandant of the Fortress and Garrison of Allahabad, which he held from 1817 to 1840.

The foregoing is in no wise an attempt to pull out all the plums. The few dozen officers of whom mention has been made are fairly representative of the whole body—perhaps two thousand in this volume. As this part includes all the Scottish names beginning with 'Mac', as well as the Irish 'Ox's' and Welsh 'Lls', all four parts of the United Kingdom are fully in evidence. Regarding a number of officers who entered the Bengal Army in its earliest days, and in some instances up to about 1780, Major Hodson has comparatively little information to give. This is inevitable, for the public records in India and London have little to disclose about them. Unlike later officers whose appointment to cadetships was approved by the Court of Directors after due filing of affidavits, baptismal certificates and the like most of which are still to be seen at the India Office, a good proportion of the earlier officers were commissioned in India sometimes virtually on the battlefield stepping into dead men's shoes. They were often drawn from the sergeants and other rank and file of the King's and Company's European troops in Bengal and Madras; and brave soldiers as many of them were, their kindred were not such as figure in the Peerages, Burke's *Landed Gentry*, or other directories of the upper-class families of Britain. The short lives of many of them render it all the more difficult to trace their antecedents, and their descendants, if any.

The value of this magnificent compilation to those concerned with any aspect of the history of India during that momentous century, 1757-1857, of the British period cannot be overstated. With its aid the identification of nearly every military officer in Northern India can be undertaken with confidence. For the military historian and the genealogist it is a tool of fine edge and perpetual durability: there is no likelihood of its ever being replaced, even in a hundred years, by anything better. Only 125 copies have been printed, of which about a hundred are for sale. The printing, paper and binding are in every respect of pre-1939 quality. The result of a quarter of a century's labour of love which Major Hodson has now made over to us is an endowment for which we can only express our deep gratitude.

H. BULLOCK.