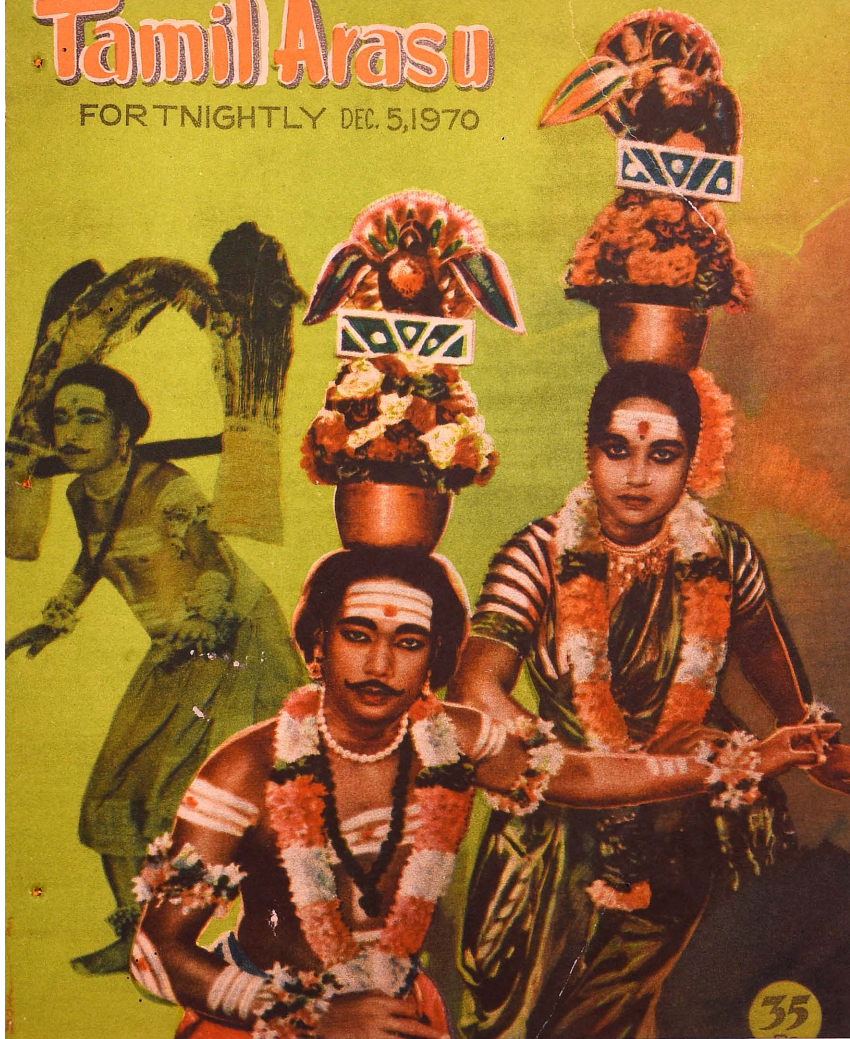
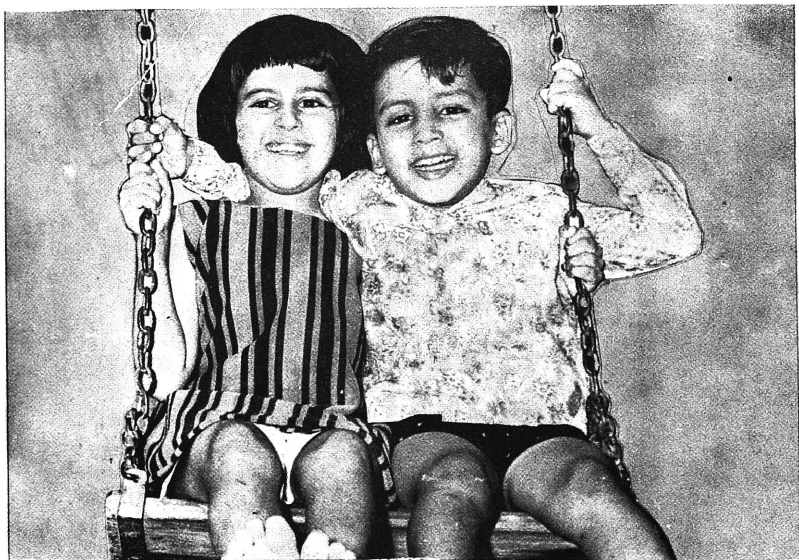


Tamil Arasu

FORTNIGHTLY DEC. 5, 1970



Swinging their way to a happy future!



Selvan and Selvi are happy and contented. Their parents lavish their love with all the comforts in life so that they can face the future with a smile.

Are they born lucky? No. Their parents were wise enough to know that with their limited means they could give them

maximum attention only if they didn't have more children.

Your happiness and the future hope for your children is in your own hands. Today you can have a child by choice, not by chance. That is when you desire one, and can give it the best attention.

Ask any of your friends who have benefitted by family planning. There are 10 lakhs of them in Tamil Nadu. Visit one of the family planning clinics. You'll get free advice, help and other aids from trained staff.

Plan your family-and live happily!

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Tamil Arasu

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Cover Page :

Depicts one of the popular Folk Arts of Tamil Nadu,
The Karaga Attam.



TWENTY DAYS

M. KARUNANIDHI

9. MAZZINI AND GARIBALDI

The colourful pages of Roman history, from the time of the invasion by the Etruscans upto the dictatorship of Benito Mussolini, unfolded themselves before the eyes of my mind and I had the impression of going through a long story, wondrous in its variety.

In concrete shape, before me, were the relics of history, spectacular even in the stage of dilapidation—the ruins of buildings tall and stately, in quite a few places in the City of Rome.

I connected the two scenes; and waves of sheer awe rose and rocked my heart.

Like a racy novel, flows the amazing history of Rome and prominently recorded therein are the rise of Caesar, the reign of Augustus, the infatuation of Mark Antony, the coquetry of Cleopatra, the flamboyance of Caligula the callousness of Nero, the perversities of Agrippina, the gospel of Marcus Aurelius, the supreme artistry of Michelangelo and the like. And as we turn the pages of Roman history, we are in the grip of conflicting emotions arising from joy, alarm,

complacence disgust, indignation, agony and exultation.

What a mass of contrasts among human characteristics and how intense indeed are those contrasts!

Was it in the lineage of Augustus that Nero came to occur? Could the soil that Octavia trod suffer the weight of a vamp such as Agrippina?

Impossible, we would say! But truth does happen to be stranger than fiction and the history of Rome does seem to be an anthology of the biographies of powerful personalities who were so totally different from one another, in terms of character.

As I gazed at the historic relics in the City of Rome the sad thought struck me that the root-cause for the fall was the decline in the national spirit of the Romans.

Yes, when the national spirit of the Romans was on high, Rome ruled the world. And when it sank and was dissipated altogether, Rome had to bow its head before tiny principalities.

The Roman Empire broke up in the 5th Century A.D. at the end of the reign of Romulus who was ousted by Odoacer. Italy was reduced to fragments and it fell an easy prey to the hostiles.

It was left to that political pundit Machiavelli of the 15th Century to dream of a united Italy that could rule the globe

once again. Machiavelli was one who maintained that the objective was all that mattered and, as for the means and implements one made use of to realise that objective, they were not of such importance as to engage the question of ethics. He sought to inject imperialist ambitions into the hearts of the princes of Italy and according to him the pathways and channels of politics did not necessarily have to be straight. Through his book **THE PRINCE**, Machiavelli taught the rulers how they should be treacherous at heart and still appear friendly, for the reason that the success scored by a king depended entirely on his ability to dissemble. Those who subscribe to straight-forward methods in politics, as charted out by honest intellectuals like Rousseau would gasp, to scan the tenets formulated by Machiavelli. I recollected that, while in the Tiruchirapalli jail in the year 1953, I had had occasion to read a book by the late Prime Minister Jawaharlal Nehru wherein he had written that although Machiavelli's arguments were far from being acceptable, the Big Powers of today were only following the self-same theories, albeit in a covert manner. Whomsoever may accept or agree with the theories of Machiavelli, we shall certainly repudiate them totally. For we know, and we have been trained to believe, that virtue itself turns executioner to those who stray from the correct path of governance.

We now come to the 19th century when, once again, the

sweet dream that the dismembered Italy should be united, sprouted in the hearts of two men. One of them was Mazzini and the other Garibaldi.

Mazzini, was verily a king of letters who, through the sweep, and force of his pen, sparked off resurgence in Italy. Garibaldi brought the dimension of action to this fervour and *elan* and he went on to achieve victory.

Mazzini raised the fire of nationalism. Garibaldi spread the flames to the four corners of Italy and in that conflagration he seared the enemies until they were less than withered leaves.

Mazzini and Garibaldi could be likened to the two eyes of Italy.

Again if Mazzini was the heart of Italy, Garibaldi was its powerful arm.

On one side was the domination of the Austrians. On another side, the royal dynasty of Piedmont ruled over a section of the country, as vassals of the Austrian aggressors. Over certain other sections of Italy, the Pope held sway. In yet another part of the land were people writhing in agony, under the tyranny of the King of Naples. Such was the picture of Italy divided into four broad



Mazzini of "Young Italy"

fragments and at its nadir. It was at such a point in history that the two freedom-fighters, Mazzini and Garibaldi, appeared on the scene. The thought and desire to rekindle the love of liberty in the oppressed land, reunite the motherland and revive the glory of Italy, had taken root in the hearts of these two individuals, very early in their youth.

Mazzini could be said to have attained political maturity at the age of ten itself and when he was twenty-five he caught the tyrannous eye of the rulers. He, who had qualified himself to practice Law but had renounced the profession so as to be able to argue the case for people's liberty in the Court of the Revolution, was lodged in the Savona prison. To Mazzini, the prison-house was a sanctuary for vigorous thinking and he considered the spell of incarceration to be the equivalent of a stretch of time spent in a flower-garden where the air was filled with the sweet music flowing from nightingales.

Thoughts and plans for the future arose on the screen of his mind, during this imprisonment. Realising that the youth of the land formed the arteries of the country and coming to the very valid conclusion that wonders could be worked only by the members of the younger generation throbbing with ardour and energy, Mazzini was filled with a desire to found an Association of Freedom-lovers and freedom-fighters, to be named "Young Italy". He decided that membership of the organisation should

be barred to those above the age of forty. He was against seeking the assistance of foreign powers for securing Freedom of the motherland. His principle was that the seed of a country's freedom should be sown only by the hands of that country's people; their raw blood should nurture it and their valour alone should form the hedge to protect the crop as it comes up. Mazzini was of the firm conviction that it was only through such a determined battle could victory be achieved and he emphasised in no uncertain terms that a community that does not have the passion and strength to fight for its rights did not qualify to live the life of the free!

With such well-developed ideas and carefully-formulated plans of action, Mazzini stepped out of prison—only to be exiled by the Government!

Mazzini sought asylum in the lap of France, in Marseilles. In that country which had played the harp of Liberation with such dedication and raised the rich and meaningful music of "Liberty, Equality and Fraternity", was pitched the camp for the defence of the Italian motherland. Mazzini's printing press was that battle camp. Through his forceful writings, he continued to kindle the fervour of nationalism in the hearts of his countrymen; and he proved that the nib of an intellectual's pen had more prowess in it than the sword of a tried and tested warrior even.

In the company of other freedom-lovers who had been

exiled from Italy, Mazzini in Marseilles lost no time in drawing up plans for revolution. Garibaldi was among those who had been exiled and it was in Marseilles that he met Mazzini.

Garibaldi was all praise for Mazzini whom he hailed as a noble individual who kept wide-awake while his entire country had forgotten its love of liberty and was wrapped in deep slumber. "Mazzini was the noble patriot who kept the sacred flame of freedom alive and saved it from being put out", the Great compatriot was to record later.

The Association of Freedom-fighters known as "Young Italy" took shape in Marseilles and within 2 years its membership swelled to 60,000. Alarmed over this upsurge, the Austrian Government prescribed capital punishment for those who became members of "Young Italy".

In the name of the Italian Community, Mazzini addressed an impassioned appeal to the Italian monarch who was ruling over a section of the country. "The hour of Revolution is drawing near. Do come and be our leader", invited Mazzini.

But the King, by name Charles Albert, did not have the guts in him to resist the dominance of the Austrians and so he set the repressive machinery of the Government against the freedom-fighters. The revolutionaries were imprisoned, tortured and even condemned to death. The sentence of death was pronounced on Mazzini and Garibaldi

too, and they were forced to leave the shores of France. Switzerland refused to grant them asylum and Tunisia too followed suit?

For three long years, these two indomitable heroes were in flight, from country to country. But even then, the lamp of Freedom that they carried in their hands shone in splendour and blazoned forth its inspiring message.

After confronting hardships in such an unbroken chain, Mazzini at last reached London and from there he continued his endeavour to further the nationalist movement of Italy, through his prolific writings.

As for that man of action Garibaldi, who was almost fagged out, he was treading the shores of South America. Settling down in a corner of that land, he found that his passion for freedom would not be quenched. He was of immense help to the local people who were yearning to throw off the yoke of Brazil and he also assisted the people of Uruguay to defend and safeguard their rights.

Even while he was fighting for the oppressed people of other countries, Garibaldi's heart was all the time yearning to see his own country free and united. While in South America itself he banded together some Italians and assembled a small army in effect, to fight for the freedom of the motherland.

He designed a new flag, the prominent colour on which was

black, signifying that the motherland was in bondage. In the centre of the flag was the symbol of a blazing volcano indicating the unquenched yearning for freedom.

A new army and a new flag ! The Supreme Warrior Garibaldi was sharpening the sword of Revolution, there in Montevideo.

The Year, 1848 ! Throughout Europe the masses had risen against despotism. It was the time when Revolutions erupted and Republics spread their nascent fragrance. The year was historic, for the strength of the people's will acquired a militant edge that toppled dictators many.

The people of Italy who had been aroused by the writings of Mazzini took the terrible pledge to rest no more. But they had no leader to channelise their turbulent energy. The agonised cry went up. "Will Garibaldi return ?"

Garibaldi was prompt in responding to the people of his motherland.

"Even if you were to collect all the gold in the world and pour it in front of me, the total worth of that wealth would come nowhere near the value of the assemblage of my red-uniformed warriors. Such is the precious valour of my men ; and do the aliens have the strength of will to confront them ?"—With this challenge on his lips, Garibaldi set foot again on the soil of his motherland.

That was in April of the year 1848. Yes, after 14 years of

exile, did the hero return, with his ardour for freedom undimmed and at the head of an army rocklike in its determination.

Vibrant with new energy, the people of the land rose as one man to throw off the Austrian yoke. The song of freedom rent the very skies.

Grainfields turned into battle fields and the peasants, whose hands were used only to the plough, now took up the weapons of war. Labourers shouldered armaments and the entire population, from school children to aged men, participated actively in the struggle for freedom. As a result, the Austrian Army, though reputed to be awfully arrayed, turned tail and disappeared from the scene, within the short space of a week.

Mazzini received the glad news in London and his rejoicing knew no bounds. "Our dear land has now thrown off monarchy and accepted a republic in its place" he announced in exultation.

But alas, the Republic proclaimed by Mazzini lasted but 8 weeks.

The Austrian army that had been scattered and put to flight regrouped and returned to give battle. Garibaldi and his men withstood their onslaught but they had to confront the French forces too, this time. His men were extraordinarily courageous no doubt, but they were not fully trained after all, nor were they adequately equipped for long-drawn-out action. Surrounding

them were the enemies come with a fresh lease of strength.

The altered situation made the Parliament of the Republic of Italy to do some rethinking and the sad result of the cogitation was the decision to surrender.

Mazzini's life-long dream came down in a crash and he sobbed : "Oh, my dear motherland, you are the heir to great glory and great misfortune". With his heart shattered and dream dispelled, he left for England.

The incensed Garibaldi, on the other hand, rushed through the streets of Rome, bursting out like Vesuvius, the Volcano.

He called out: "Have you listened to the news, O, young men, of our land? We are fighting a battle on three fronts, for ranged against us are the armies of Austria, France and the Papal State. Our warriors number but three thousand and they too are not fully trained in the strategy of warfare. And so, the Parliament has ordered us to surrender. Yours are the hands that are to write again the heroic epic of Rome. Join my ranks in order to fight the enemies of the motherland! I shall not be able to offer money or position or a marble palace to those who volunteer to march with me. On the other hand, the guerdon will be hunger and thirst, battle fields overflowing with raw blood and clangorous formations ever in danger. O! Young men that have offered up your hearts for the country, do come forward to defend the honour of the motherland!"

Despite all his sustained efforts, Garibaldi's men could not, withstand the combined might of the enemies. Soon they had to flee.

Garibaldi and his warriors were on the move, unmindful of the weather, unmindful of hunger or sleep, unmindful of the terrain they traversed and through jungle and over the sea.

Garibaldi sought asylum in the beautiful isle of Rio de Janeiro

but the Government of the island ordered him to leave, as it stood in dread of Austria.

With 200 soldiers, Garibaldi set sail in 13 boats. The long and cruel arm of despotism pursued him even on the deep sea and in a violent engagement that had all the force of a gale, he lost 160 of his men.

Marcus Aurelius



His wife fell ill and carrying her on his shoulders, Garibaldi reached an hamlet of fisherfolk. It was there that his helpmeet who had come into his turbulent life while he was in South America and who had uncomplainingly stood by him through thick and thin, breathed her last.

Having lost the opportunity to redeem his motherland and having been deprived of his comrades-in-arms too, Garibaldi lost his dear wife.

His heart laden with grief and misery, he walked on for 40 days oblivious of his surroundings.

He had the glimmer of a hope that Victor Emmanuel who ruled Sardinia might grant him refuge but it was not to be, for that prince was too scared of the might of Austria.

The same fate awaited Garibaldi in Tunisia. He sought shelter on the coast of Gibraltar but the English Governor of that rock would not let him stay.

In this manner, the despotic regime of Austria and its ally-Governments elsewhere chased Garibaldi from place to place.

At last, Garibaldi reached New York in the year 1851, and engaged himself in the candle-trade. Perhaps through that calling he sought to point out the poignant fact that he himself had been a candle that had burnt itself in the cause of the motherland!

After 3 years, Garibaldi returned to his native soil and in Nice he turned attention to agriculture. But even at that stage, the love of freedom was smouldering deep in his heart.

It was left to Cavour to rekindle that fire in Garibaldi's heart. Cavour, a shrewd statesman, was the Prime Minister of Victor Emmanuel belonging to the Piedmont dynasty that ruled over a part of Italy. Cavour invited the hero to his side, with the intention of putting an end to intolerable dominance by Austria through the help of Mazzini and Garibaldi and then setting up Victor Emmanuel as the crowned King of the entire Italian landscape. Garibaldi accepted the invitation, for he was keen to get rid of foreign domination and reunite Italy somehow or other. At this juncture, France too agreed to oppose Austria.

Garibaldi assembled an army of 5,000 men and this time he left little to chance. His forces, aided by the armies of Emmanuel and the French legions, administered a crushing defeat to Austria. The regions of Italy reverted to the ownership of Italians.

Just when total victory was within grasp, the French monarch Louis Napoleon called off the war and made up with the Austrians, against the advice of Garibaldi. The reason for his volte-face was the apprehension that if Italy were to become a single entity, his position would be threatened some time or other.

Garibaldi took the setback in his stride and building up his strength once again, he scored creditable victories in Naples and Sicily. Even the English poet Tennyson lauded these successes attained by the Italian hero.

From then onwards, it was a story of success after success for



Garibaldi who saw his dream of united Italy coming true. He died in 1882, full of years and honours.

But Mazzini could not realise his dream. The people of the land where Garibaldi won his Victories, decided through a plebiscite to accept the monarchy of victor Emmanuel. They presumably were of the opinion that they would be shielded from alien domination, only if a strong king were to be their fortress.

The all-consuming desire of Mazzini had been to light the undying lamp of the Republic in a united Italy. Since this was not to be, that towering writer and uncompromising idealist died of a broken heart in the City of Pisa.

Thus the two gems, Mazzini and Garibaldi, disappeared from the scene but their thoughts and deeds are a perennial source of inspiration to this day.

(To be continued.)

NATIONAL FILM AWARDS AT MADRAS



The annual national awards for films were presented by the Tamil Nadu Chief Minister, Thiru Karunanidhi on 21st November 1970.

K. B. Sundarambal, whose name is a byword for the South Indian cinemagoer, was overcome with emotion as she walked up to receive her award, from Thiru M. Karunanidhi.

Speaking at the function, Thiru. Satya Narayan Sinha, Union Minister for Information and Broadcasting, appealed to Indian film makers not to go in for escapist entertainment which totally negated the role of the cinema as a socially purposeful medium.

The award winners for 1969 were: The best film—Bhuvan Shome (Hindi). The second best film—Deeparatri Kapya (Bengali)



The best films in regional languages :

Tamil—Irukodugal

Malayalam—Adimaikal.

Kannadam—Kajja Bhooja.

Telugu—Atharsha Kudumbam

The award winning artistes were :

Best actor—Uthpal Dhat (Hindi film).

Best actress—Madhabi Mukerjee (Bengali film).

Best playback songster—S. D. Burman (Aaradhana—Hindi).

Best playback songstress—K. B. Sundarambal (Thunaivan—Tamil).

Thiru Gemini Ganesh and Sowcar Janaki received awards as best actor and actress respectively of Regional entries.

Soviet Cosmonauts honour C. M.

Boris Volynov and Evgeni Khrunov called on the Chief Minister at his residence on 28-11-70 and pinned the "Space Pennant" on his shirt.



EVERY HELP FOR THE

Dr. Livingstone, an eminent British Educationist, says that the educated unemployment is more dangerous than the uneducated unemployment. The Chief Minister of Tamil Nadu Thiru M. Karunanidhi, in his Madurai University convocation address expressed his deep feelings at the prevailing situation in the country in this regard.

While disclosing the fact that the Government of Tamil Nadu is formulating schemes within the limited powers available to it for solving the unemployment problem, he advised the students from the upper strata of the society not to think in terms of seeking employment after their education.

Solving unemployment problem

He pleaded that the idea to be in a job is more honourable than other avocation should give place to a pragmatic approach. He requested that these students instead of thinking about finding jobs should think about serving the society leaving the employment arena to the students from the poorer sections of the society. They should consider this as a sacrifice he said. That advice itself serves as one of the solutions for solving the growing unemployment problem. At the same time the Chief Minister also stated that the Government of India should think of help in a big way.

Only then we can succeed in solving this important problem which the country is facing today.

As stated by the Chief Minister at the Madurai University Convocation address, the Government of Tamil Nadu has drawn up several schemes for solving the unemployment among the engineering graduates, diploma holders and craftsmen. One of the schemes is the special apprenticeship training scheme under which about 600 unemployed engineering graduates, 1,000 diploma-holders and 800 craftsmen will be absorbed as Apprentices. This is

TECHNICALLY TRAINED

over and above the existing apprenticeship training schemes under the Apprentices Act.

The object of the scheme is to impart training in practical work to unemployed persons having technical skill so that they can have better chances of absorption in State Government departments, public sector undertakings and private sector and to acquire the necessary self reliance to start enterprises of their own. The scheme will be in operation for a period of two years.

The trainees during their apprenticeship will be paid Rs. 250 for engineering graduates, Rs. 150 for diploma-holders and from Rs. 60 to 90 for craftsmen per month.

The selection of apprentices under this scheme will be con-

ducted by a Recruitment Board. The graduates, and others who are already on the rolls of the employment exchanges in Tamil Nadu will be interviewed by the Selection Committees of the Recruitment Board at Madras, Coimbatore and Madurai. Similarly the craftsmen who are on the rolls of the Employment Exchanges will be interviewed at the District headquarters.

Another scheme has also been drawn up to increase the employment opportunities for the engineering graduates and diploma holders. Under this scheme all the necessary facilities and assistance will be provided to those who are willing to start ancillary industries around the three Public Sector Undertakings, The Madras Refineries Limited, the Madras Fertilisers Limited and the Hindustan Teleprinters. In this connection the Industries and Commerce Department of the Government of Tamil Nadu in collaboration with the above three Public Sector Undertakings has arranged an exhibition, "Opportunities for Entrepreneurs" at the Guindy Industrial Estate, Madras. The exhibition was inaugurated by Thiru D.R. Chavan, Union Minister of State Petroleum and Chemicals on 21st November 1970. Thiru S. Madhavan, Minister for Industries, Government of Tamil Nadu presided over the function. Thiru S. Madhavan said that there are

TO START INDUSTRIES



Thiru S. Madhavan and Thiru Chavan going through the exhibition

about 5,000 unemployed Engineering graduates in Tamil Nadu alone. The only way of solving this problem is to increase the tempo of industrial development. Therefore he said that the Government of India should give licence to the Tuticorin Fertilisers Project and Naptha Cracker Plant and Petro-Chemical Complex at Manali near Madras without any further delay. The future hope of Tamil Nadu lies only in the implementation of such projects. For, these big projects will further create employment opportunities through ancillary industrial units like the complexes which we are now planning arounding these three Public Sector Projects.

The Union Minister said that such ancillary units are inevitable for big projects like the Madras Refineries Limited. On display at the exhibition were the spare parts required by these three

undertakings which can be manufactured by small-scale industries. The Industries Department has also arranged to take the persons who are interested in starting ancillary units to manufacture these spare parts, around these factories.

This scheme will be extended to other big Public and Private sector undertakings also. The participation of such other undertakings in this scheme is therefore welcome. Already a similar exhibition has been arranged at Tiruchirappalli to create an ancillary industrial complex around the Boiler Plant of the Bharat Heavy Electricals Limited.

The aim is to create ancillary industrial complexes around giant factories so that more people will take to these small enterprises providing employment to more people.

While inaugurating the Ancillary Industry Exhibition at Guindy on 21st November 1970, Thiru D. R. Chavan, Union Minister of State for Petroleum and Chemicals referred to similar developments in other parts of the country. He said :

“ Ancillary industrial estates have been set up and two important and successful examples are the Hindustan Machine Tools Ancillary Industrial Estate at Bangalore and K. R. Sundaram Industrial Estate which has been set up by Enfield of India in Madras. H.M.T. produces 2,000 machine tools which involves manufacture of 20 million components—hence an ancillary industry has been set up. This industrial estate has 50 units which have been set up by erstwhile workers, foremen of H.M.T. Most of the machines have been supplied by the National Small Industries Corporation under its hire-purchase system. Besides providing factory accommodation at reasonable rent and assisting units to set up their plants, H.M.T. provides free technical advice and guidance for the manufacture of components. Inspection, training of workers and other services are provided by H.M.T. Blue prints, gauge, fixtures and technical supervision is also provided by H.M.T. Sometimes, H.M.T. provides scarce raw materials required by these units.

As all of you may know, a two-day seminar on the Development of Ancillary Industries by Public

Sector Undertakings was held at Bangalore on the 3rd and 4th of April 1970 when the Secretary to the Union Cabinet stated that the public sector undertakings should take steps to encourage local entrepreneurs to set up ancillary units around undertakings which would create employment. Resolutions adopted in the seminar include (i) that every public sector undertaking where ancillary development is possible should set up an Ancillary Division or designate a senior officer who should primarily be responsible for the development of ancillaries. His responsibilities would include to specify items where imports are inescapable and give top priority to locate indigenous capacity for these items to farm out items to ancillary units and to identify items which could be profitably offloaded to existing or proposed ancillary units; (ii) the public sector undertakings should take on the responsibility for the development of Ancillary Industrial Estates in co-operation with State Governments, etc., (iii) the public sector should provide all necessary technical assistance, tooling and testing facilities; (iv) public sector should try to provide scarce raw materials; (v) the price and period of contract should be for a long duration and (vi) public sector units should recommend the financial requirements for their ancillary units to the various financial agencies.

The above factors show that the Government is taking keen and active interest in setting up ancillary industries mainly as a tool to diversify the employment opportunities in the country.

In the Ministry of Petroleum and Chemicals, some of the large units such as the Oil and Natural Gas Commission, which in 1970-71 has a Revised Budget of Rs. 56.6 crores for exploration and development and is earning a revenue of Rs. 51.4 crores, had a gross demand for spares and components of Rs. 25.2 crores in that particular year. Of this, about 42 per cent was accounted by imported stores. In the case of Indian Oil Corporation, which on 31st March 1970 had a gross investment in plant and machinery of Rs. 129 crores, and had a turnover of Rs. 63.66 crores, had stores of about Rs. 11.0 crores. Similarly, Fertiliser Corporation of India on the 31st March 1970 had a gross investment in plant and machinery of Rs. 134 crores with a sales turnover of Rs. 65.8 crores, had stores, spares and packing material worth Rs. 17.2 crores. While some of these spares are indigenous, some of them are still imported and with a little effort,

ancillary units could be set up to cater to their requirements.

The Oil and Natural Gas Commission has been for some years trying to develop indigenous sources for procurement of machinery spares and to this end, a Design and Manufacture unit was set up in 1962. Although the progress could have been much more, nevertheless, such items as welding sets, 877 items of spares involving a foreign exchange outgo of Rs. 40 lakhs have now indigenous producers. In addition, items to be taken up soon include filters, bearings, desanders, degassers, gaskets, rubberised components and fuel injection pump parts. In addition, the Commission amongst other things, is investigating the import substitution for Radiators for heavy duty engines, instruments and gauges, transmission chains, gas sprockets, and also reclamation of worn out parts by the hot and cold process.

(continued on page 35)

The spare parts required by Madras based Public Sector projects on display





The Kodaikanal hill station on the Palani Hills in Madurai is a lovely summer resort with perennial attractions. The Bryant Park is one among them. Laid out as a terrace garden to please visitors, it is a major seed-collection centre and exporter of cut-flowers. Situated in the valley adjacent to the lake, the Bryant Park is today one of the major Horticultural research centres of Tamil Nadu.

The Bryant Park is the result of the pioneering work done by one Mr. H. B. Bryant, the District Forest Officer of Madurai around 1900. The area between the "consumption ghat" and the lake in the valley which was a dense jungle in the early 1900 was planted with a large numbers of blue gums, wattle and pines by Mr. H. B. Bryant. By 1908 the valley had been laid as a park with pine groves on the slopes and the flower bed of different varieties below.

But until recently due to various reasons the park did not receive the attention it deserves. From 1900 to 1919 it was under the

control of the forest department. It came under the control of the Curator, Government Botanical Gardens, Ooty from 1920 to 1924. Then at the request of the curator who expressed his inability to supervise this work it was transferred to the Kodaikanal Municipality with an annual grant of Rs. 1,000 for its maintenance. Due to lack of adequate finance and trained personnel all these years the park could not make much progress either as a beautiful park or as a Horticultural and floricultural research centre. With a view to convert it into an attractive botanical garden, the park was finally taken over by the State Agricultural Department on 18, November, 1961. And an Assistant Horticulturist is in charge of the park now.

From then on the Bryant Park has witnessed many-sided progress and is growing into one of the major Botanical Gardens. The park now occupies an area of about 20.5 acres. About 18.15 acres of land was cleared and laid out with pleasing

turf. An area of $2\frac{1}{2}$ acres of swamp was cleared and levelled up and converted into a children's garden. The pont terrace was completely redesigned with lawns and terrace gardens. New hedges to a length of 700 metres were planted besides erecting arches, rockery, etc., at ideal places to improve the layout of the park.

While such improvement works were being carried out side by side, the introduction of new varieties of plants was also planned in a systematic and scientific way and was implemented in full swing. A total of about 440 varieties of Floribunda and Polyantha roses, 29 varieties of cacti and succulents, 28 different varieties of orchids, 14 varieties of Chrysanthemum, 501 different species of trees and shrubs were newly introduced for trial in this park. This park is also the main centre for the supply of

(Contd. on page 35)



CHANGING PATTERN OF EDUCATION ABROAD

*(The Second of Two Articles,
the first one was published
in Tamil Arasu 21-11-70.)*

A word about the educational systems prevailing in the countries I visited. The United States operates within the framework of a federal system in which each of the 50 States exercises sovereign control over schools and education in that State. There in the United States is a strong tradition that a large measure of control over education and the schools should rest with the local community. State statutes and directives define minimum standards for schools, the taxing power of the local community for education and leave to the locally selected school board the responsibility for providing education in conformity with State regulations. Each school system under the School Board frames its own curriculum in broad outline and leaves considerable autonomy to the school teacher to choose his own method of teaching based on sound educational principles and achieving the desired results. The United States Office of Education (which corresponds to the Central Ministry of Education in our country) has a mandate to collect educational statistics and make them available to schools and school authorities. It performs a research and clearing-house function rather than an administrative one

in relation to school systems. It administers the subsidies for education appropriated by the Congress of the United States. For the most part these funds are used for vocational education, science and mathematics, modern languages, guidance and research in the field of education. It is said that the Federal Government which is now sharing about 8 per cent of the expenditure on education may by the end of 1980 hold itself responsible for something like 30 per cent of this expenditure in view of its commitment to equalise educational opportunities for all, taking particular care of the culturally and educationally disadvantaged classes of the people under the Welfare provision of the federal constitution. A more extensive description of the Secondary education system in U. S. is published elsewhere in this issue.

In Germany

In West Germany educational planning and policy, by virtue of the legal stipulations are in the

hands of the Ministry of Education of each member State of the Federation. Most of the States have a School Advisory Council composed of representatives of teachers and parents, the ecclesiastical authorities, administrative and other persons concerned with education, which must be heard by the Minister before any organisational changes are made. The Ministry issues the general directives and on their basis the teaching staff of individual schools draw up their curricula. The teachers are given freedom to adopt their own teaching techniques, keeping in view the desired objectives. Before school books are introduced they must be submitted for approval to the Text Books Committee of the Ministry. They are then entered in the official list of Text Books from which the various schools can make their choice. Education is financed out of general tax receipts, not from special education taxes as in the United States of America. School costs are shared by the State and those who run the schools, that is, any corporate body or organisation legally responsible for establishing and maintaining a school. When maintenance is on a joint basis, which is becoming more

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Director of School Education

and more common, staff costs (salaries, pensions, etc.) are borne by the State and material costs (school buildings, class-room equipment, etc.), by those who run the school.

In the United Kingdom

In the United Kingdom, under the guidance of the Minister for Education the national policy is applied by the Local education authorities to the needs and circumstances of their own areas and in consultation with the governors and teachers responsible for individual schools. The essential quality of the national policy is flexibility and accordingly the Minister does not issue directives in such matters as

expenditure is financed out of national taxes from which a grant is made to the local authorities. The greater part of educational expenditure is incurred directly by the local authorities from out of local rates collected on the basis of the value of land and buildings.

In Japan the Central Educational authority is the Ministry of Education, which is responsible for the promotion and dissemination of education at all levels. The ministry administers a number of national establishments including Universities, Junior Colleges, Technical Colleges, etc., and it also provides guidance, advice and financial assistance to local

community and the free compulsory education that is enforced in all the abovementioned countries for all children generally of the age-group 5-6 to 15-16 is fashioned and designed to equip them for the challenging tasks of life, and at the same time inculcating in them a sense of individual dignity, love of work and regard for truth and peace. There is also another salient feature which deserves notice and that is the vocationalisation of education in the above countries which brings education closer to productivity. Unlike our educational system which has been training young persons so far, mostly for white-collared professions or Government services, the educational

it offered for boys as well as girls who were planning to take to technical professions. It is high time that we did something in this direction with a sense of urgency with a view to training our youth in useful vocations while at school.

The New Instruction Aids

The use of instructional technology in the classroom in the United States, West Germany, Japan and Singapore is seen to be on the increase in scope and extent. Slide projectors, overhead projectors, tape-recorders, motion pictures, the radio and above all the T.V. constitute a fascinating variety of teaching aids which help the teacher to enliven learn-

ing on the earning of a required number of units of credit and not upon a comprehensive examination at the close of the secondary school year. Note is taken also of the student's growth through observation techniques, oral tests and practical examinations. There is no national school leaving examination in England and Wales. Control over examinations is exercised by "Schools' Council for Curriculum and Examination" to ensure national comparability. There are no compulsory subjects. Candidates may take as many as they wish. There are about 80 subjects to choose from at the O-Level of the General Certificate Examination and about 60

national attainment of the pupil should be increased.

The Teacher Abroad

The American teacher recognises his unique leadership role and responsibility to promote an educational community which reflects values and principles contributive to improving the quality of education. He works in a team spirit, keeps an open mind, receptive and experimental, and looks upon his work as a great intellectual and social adventure.

Even so, the teachers of West Germany, the U.K., Japan and Singapore seek to win the love and confidence of their

STRONG VOCATIONAL BIAS

syllabus, curricula, text-books or the detailed organisation of any school. Only one subject, religious instruction, is compulsory under the law and it is subject to safeguards concerning parents' wishes and denominational rights. Teachers generally enjoy very wide limits of freedom in what shall be taught and it shall be taught. But the work of the training colleges for teachers and the professional associations, the formal and informal contacts of Her Majesty's Inspectorate of schools and the advice put out by the Ministry in circulars and booklets all have a unifying influence while at the same time stimulating the spread of progressive and innovative ideas. Educational

(i.e., prefectural and municipal), education authorities whose main responsibility is for the operation and support of public elementary and secondary education. Every school organises its own curricula in accordance with the Ministry's course of study with due consideration for community characteristics and the pupils' stage of development and experience.

The above is only a very brief review of the educational systems and I cannot possibly make it a bit more elaborate in view of the limited space available. However, the fact is revealed that by and large education is the responsibility of the State and the local

programmes and practices adopted by the United States or West Germany or Japan give a strong vocational bias to secondary education. In the United States the comprehensive schools offer special courses apart from the academic such as vocational, vocational-technical, technical, commercial, etc. In Japan the Upper Secondary course is classified into several categories according to the pattern of curriculum: general, technical, commercial, domestic arts and others. In West Germany too vocational education has attained considerable significance and one of the vocational schools which we visited in West Berlin was most interesting for the varied courses

GREAT RESPECT FOR TEACHER

ing situations and sustain the interest of students. The Hon'ble Minister and I had an opportunity to visit a T.V. Studio equipped with all the sophisticated gadgets that modern science can offer in a Teacher's Training College in Singapore. The programmes put out on a closed circuit by the studio for the benefit of the schools around the college were reported to be most enthusiastically received by the children who obviously found them exciting and instructive.

As regards examinations it is to be noted that in the United States there is no uniform programme of teaching for the entire country. Promotion is based

subjects to choose from at the A-Level of the General Certificate Examination. In West Germany schools conduct their own examinations and award grades. For joining the University one should receive the *Abitur* with the required grades at least in five subjects obtained in one sitting. In Japan common examinations are held simultaneously for all candidates of Upper Secondary Schools. In the light of what I have observed I feel that there should be no further delay in our bringing about some needed reform in our examination system. Our external examination should be made less formal and its validity as a measure of the total edu-

cation and establish their prestige on sincerity, integrity, hard work and a sympathetic handling of their problems. All these teachers believe in continual professional growth and do not therefore hesitate to avail themselves of the opportunities given to them to refresh their knowledge, and update their techniques of instruction through in-service education programmes.

The teacher training programmes of the United States are based on the concept that all children deserve excellent teachers and all teachers need an equally high level of preparation to develop the necessary qualities to educate their nation's youth. Dr.

Francis Shoemaker, the Director of the Teachers' College of Columbia University tells that the teacher is at once a planner, an innovator, a culture-bearer, and a prophet whose love of children, faith in his vocation, personal devotion and commitment are as indispensable as courage in all difficult situations, intellectual curiosity, critical thinking, tolerance, enthusiasm and a sense of humour. These observations are worth remembering indeed.

New horizons

There is so much to write. But in a short article like this it is not possible to pack in more details. The impressions that I have gained with respect to education during my recent foreign tour have been outlined above in a general way. I hope to be able to write more in subsequent articles. Need I say that I have professionally gained a lot as a result of this—gained in knowledge, experience and understanding of the new horizons in the educational scenes of other countries, the new directions that are given to quality education there and the new images of the future that are being envisioned by those who do and dare. As an educational administrator, I am more conscious than ever before of the urgency with which the task of restructuring our educational programmes on innovative and imaginative lines has to be fulfilled.*

INDUSTRIAL LICENSING IN THE DISTRICT

District Level Committees set up to eliminate delays

With a view to give a greater impetus and make suggestions for the development of Small Scale Industries in this State, the Government have constituted District Level Committees in each district, under the Chairmanship of the District Collector. The Committee consists of the following members :—

1. District Collector—Chairman.
2. Assistant Director of Industries and Commerce—Member—Convener.
3. Personal Assistant to the Collector (P.D.)—Member.
4. District Health Officer—Member.
5. Inspector of Factories of the district—Member.
6. Superintending Engineer (Electricity) of the district—Member.
7. Two representatives of the District Small Industries Association—Members.
8. One M.L.A. and one M.P. from the district to be nominated by the Government—Members.

This Committee would spot out delays in the issue of approvals and licences by the various authorities in the district in connection with the establishment of Small Scale Industries and eliminate them promptly. The Committee will also co-ordinate the activities of the various Departments so as to assist in the prompt disposal of applications. The Personal Assistant to the Collector (P.D.) would be closely associated with this Committee so that he could expedite the clearance of the applications by the panchayats. The main function of the Committee is to spot out delays in the issue of approvals and licences, such as licences under the Factories Act, panchayat licence, electricity power supply, etc., by the concerned authorities and to eliminate the delays promptly. It will be the responsibility of each of the District Departmental Officers, with whom an application has been pending for over two weeks, to bring it to the notice of the Committee with proper explanation for the delay. The affected parties may also write to the Chairman of the Committee directly bringing cases of delay to his notice.

SECONDARY EDUCATION IN U.S.

The word "Secondary" is used in contradistinction to "primary" in England and "elementary" in the United States to describe a stage in education beyond an elementary standard.

The term "secondary" was popularized by Matthew Arnold, who adopted it from French educational nomenclature to indicate that grade of general education which lies between the elementary or preparatory school and the university. His repeated cry, "Organise your secondary education," marks the beginning of a movement which led to the appointment in 1894 of the Bryce Commission on secondary education and the Act of 1902, in England. So far as the U.S. is concerned, between 1890 and 1960 more than a dozen committees or commissions representing influential educational organisations of national scope formulated the purposes of secondary education. The doctrine became widely accepted that the maintenance and enrichment of the democratic social order demanded that the high schools admit, and retain as long as possible, all the pupils from the elementary schools. This in turn required the schools to determine the educational needs of the students and of society. The statement of these needs involved the specification of a set of desirable behaviours (e.g.,

understandings, attitudes, appreciations, skills) and also the aspects of living (e.g., citizenship, family, health, work, leisure) in which the behaviours should be exhibited. The following is a typical statement of this kind: "All youth need to understand the significance of the family for the individual and society and the conditions conducive to successful family life". Efforts to compile and disseminate such statements of needs or objectives were fruitful in stimulating and guiding not only the determination of educational policy but also curricular reforms.

Curriculum

The organisation of learning experiences into "subjects" of which American literature, algebra and history are typical examples, was a characteristic feature of the curriculum of the first high schools. In an effort to adapt the curriculum to a wider range of individual differences in interest and ability, the traditional subjects were gradually changed in content and internal organisation; many new subjects were also introduced.

Steps toward standardization were likewise taken. As a result subjects were usually planned in terms of a year or half year of instruction in periods of 40 to 60 minutes per day. Students who complete a subject satis-

factorily are granted one unit of credit. Upon completion of a specified number of properly chosen units (15 or 16 in a four-year school) they receive a diploma. Some work in certain subjects including English, United States history, mathematics, science and physical education, is commonly required, but roughly half the student's programme may be elective. Foreign languages, fine and practical arts, shorthand, typing, psychology, automobile driving and many other subjects are offered as electives in the larger schools.

In the comprehensive high schools, however, the social studies, the fine arts and the vocational subjects had grown in relative importance largely at the expense of the foreign languages and mathematics. Moreover, courses in problems related to family living and personal adjustment were introduced and grew in popularity. Work-experience programmes, involving part-time employment arranged by the school with provision for correlated instruction and supervision, were established in some schools.

Guidance and Related Problems

Modern secondary schools recognize that students often need considerable guidance in selecting their courses, in choosing a vocation and in otherwise adjusting their personal lives. Problems of these kinds are aggravated by diversified curriculum, by changing social conditions affecting opportunities for employment and by changing relationships with other persons,

LOOKING AFTER PLANTATION LABOUR

The Plantation Labour Act, 1951 applies to all Coffee, Tea, Rubber, Cinchona and Cardamom Plantations of 10-117 hectares (25 acres or more in acre) and on which 30 or more persons are employed or were employed on any day of the preceding 12 months. The Act regulates the working conditions of workers in plantations and provides for the provision of drinking water, adequate medical facilities,

housing accommodation, recreation and educational facilities, etc., to the workers.

Three hundred and four plantations covering 89,492.23 hectares and employing 72,386 workers, came under the scope of the Act during the year 1968. The provisions of the Act are enforced by the Commissioner of Labour who is assisted by the Chief Inspector of Plantations,

Madras and five Inspectors of Plantations. All these plantations were inspected by the plantation Inspectors during the year.

Housing Accommodation

Planters provided 30,022 houses (new constructions and renovations) conforming to the prescribed standards, up to the end of the year under report; Planters have yet to provide 3,668 houses, for the resident workers.

During the year under report, plans relating to the constructions of labour quarters were received from 12 planters and approved by the Chief Inspector of Plantations.

(Edn. in U.S.—Contd.)

particularly parents, that occur, in adolescence. The larger schools therefore employ specially trained personnel to gather data about individual students, to give counsel and to co-ordinate similar less formal efforts by all teachers. Often tests to determine both general ability and special aptitudes are administered. Extensive records of achievements and summaries of personal characteristics are kept on file. Time for guidance is made available, and sometimes consultants from outside the school are invited to assist students and teachers on special problems.

The articulation of secondary schools with the elementary schools and colleges was greatly facilitated by testing programmes sponsored and administered by the institutions on the higher level. The transmission of rele-

vant data about students from the lower to the higher levels was also improved. As a result of parties like these the guidance of students in the selection of high school and college work became more effective. Concern for students with serious disabilities, such as low achievement in reading rate and comprehension or inadequate skill in arithmetic computation, led to the provision of special classes for these students in the high schools.

Problem of drop-outs

Educational leaders also became concerned by the fact that many students leave school before they are graduated. Research showed that, while the necessity of contributing to family income and maladjustment of curriculum and student are two important causes, they are not the only

ones. Attention was focussed on the out-of-pocket costs of attending high school. Class dues, tickets, special equipment such as band instruments and various other types of incidental expenses often add up to considerable sums. The inability to meet these expenses doubtless leads many students to withdraw from school at a stage where they could still profit educationally.

Many observers of the educational scene expressed the opinion that the changes in the secondary schools during the 20th century resulted in a lowering of standards and an unwarranted neglect of the ablest students. There was little doubt, however, that the educational level of the nation as a whole had been raised appreciably by the improvement and the popularity of the secondary schools.

TAMIL NADU MARCHES AHEAD IN FOOD PRODUCTION.

	Lakhs of Tonnes
1950-51 (Preplan Period)	31.63
1955-56 (First Plan)	45.45
1960-61 (Second Plan)	53.13
1965-66 (Third Plan)	50.60
1969-70 (Final Forecast)	63.00
1970-71 (IV Plan anticipated)	67.00

Tamil Nadu aims to produce 67 lakhs of Tonnes of Food grains during 1970-71 with the extension of area under High Yielding Varieties and increased use of Chemical Fertilisers as below :

1. Anticipated (gross) area under food crops 132.90 lakhs of acres.
40.45 lakhs of acres.

2. Area proposed under High Yielding Varieties

3. Anticipated consumption of chemical fertilisers.

1.80 lakhs of Tonnes.
0.60 " " "
0.50 " " "

Nitrogen—N
Phosphoric Acid P.
Potash K.

4. Plant Protection (Food Crops)

(i) Aerial spraying
(ii) Plant Protection by other means.

47.00 lakhs of acres
8.30 " " "
38.7 " " "

Opposite Page :

Nehru Birthday Celebrations in Madras on 14th November 1970.

(1 and 3) Children's Rally at Nehru Stadium. Chief Minister Thiru M. Karunanidhi, is seen acknowledging the greetings of a vast throng of Children at Nehru Stadium.

(2 and 7) The Education Minister, Thiru V. R. Nedunchezhiyan, inaugurated the Children's Books Exhibition at Rajaji Hall.

(4) Shows music concert of Music Director Thiru Viswanathan's Party, Thiru T.M. Sundararajan, Thirumathy P. Susila are seen singing.

(5) Depicting a scene from the play 'Venpura' enacted by the poet Kannadasan.

(6) The Poets' Symposium in Session.

(8) Chief Minister is addressing the All Party Public Meeting at University Centenary Hall.

Last Page :

(1) Minister for Backward Classes Thiru N.V. Natarajan distributes enriched bread to Children of the slum areas.

(2) Chief Minister Thiru M. Karunanidhi, opening the Municipal Maternity Hospital at Mettur.

(3) Mr. Derrick Hughs, Regional Representative of the British Council in South India called on the Tamil Nadu Education Minister, Thiru V. R. Nedunchezhiyan, on 11th November 1970, at the Guest House.

(4) The Public Works Minister, Thiru S.J. Sadiq Pasha, opened the new bridge across the Ongur River on the Marakkanam-Choonampedu High Road.

(5) An Agriculture and Harijan Welfare Seminar was held at Salem on 5th November 1970. The Minister for Religious Endowments Thiru K.V. Subbiah, presenting a rolling shield to the best Harijan Welfare School in Salem district.

(6) The Chief Minister distributed 15,000 house-site and land pattas at Sathyamangalam in Coimbatore District. A Nomadic Professional bard was also given patta for a settled life.

(7) The Chief Minister inaugurated the All India Co-operatives week on 9th November 1970 at the Tamil Nadu Co-operative Union Building in Madras. The Minister for Co-operation presented a copy of the Co-operation Journal Special Number to the Chief Minister.

(8) The Minister for Public Works, Thiru S.J. Sadiq Pasha, inaugurated the Palar Drinking Water Extension Scheme on 8th November 1970 at Tambaram.

(9) The Chief Minister opened the Government Arignar Anna Arts College at Namakkal.

(10) Mr. Ladislaus Von Hoffmann, Vice-President, International Finance Corporation met the Tamil Nadu Industries Minister Thiru S. Madhavan at his Chambers on 13th November 1970.

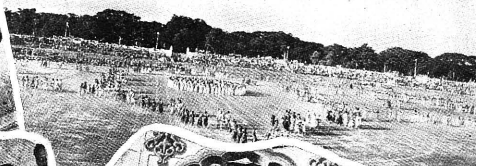
THE PANDYA SCULPTURES OF TENKASI.

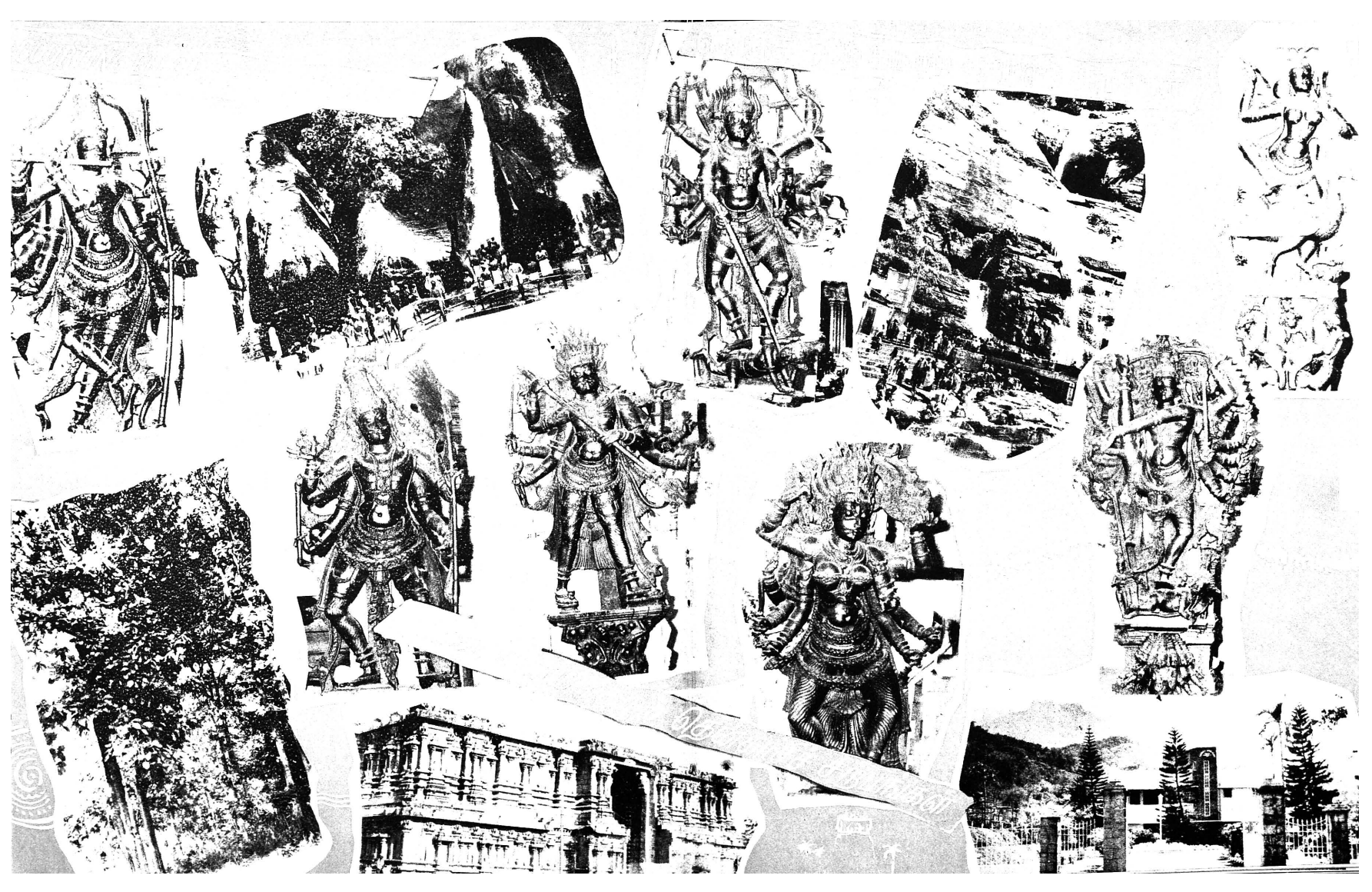
The sculptures reproduced in the Centre-spread are to be found in *Sri Kasi Viswanathaswamy Temple, Tenkasi.*

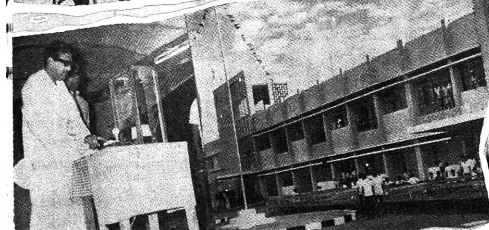
Among the large and famous temples of Tamil Nadu, the Kasi Viswanathaswamy temple at Tenkasi holds a pre-eminent position. The interesting inscriptions found in the temple speak volumes about the valour and piety of Parakrama Pandya, the outstanding Pandya King who built this temple. He along with his brother Kulasekhara ruled over the region from 1422 to 1463 A.D. with Tenkasi as headquarters.

The Gopuram, an imposing structure, was one of the tallest in Tamil Nadu. It was built on a huge platform about six feet high from ground level. The Gopuram was built of stone, up to the first lintel about 38 feet in height and the rest in brick and mortar, the top of the tower reaching a height of 180 feet. This tower was ruined by a fire during the beginning of the nineteenth century. The four top-most storeys had been completely annihilated by fire and the truncated tower now presents a sad spectacle. Efforts are however being taken to rebuild the tower.

The Pandyas brought a different but important shift in emphasis in Temple architecture. In Pandyan art in general is seen an attempt to produce a more elegant effect by an increase of decorative detail which may be taken to mark the transition from the restrained maturity of Chola architecture to the "exquisite though extravagant productions of the Vijayanagar".









A lodged field is as bad as losing food from the mouth

I.A.D.P SOLVES HIS PROBLEM BY ADAPTIVE RESEARCH

The Thanjavur Intensive Agriculture Programme has armed itself with a new method of research for intensification of agricultural progress in the District. By widening the theatre of research beyond the fences of research stations, the time lag in research has been drastically cut down by the method of Adaptive research in the farmers' holdings.

In the first decade of the intensive programme, 1960-70, the introduction of ADT-27 and the double cropping programme were the two break-through points which set the pace of paddy production, to a new level. ADT-27, a cross between an Indica and a Japonica, improved the per acre production of the first crop season, and the double cropping programme brought in more area by conversion of single crop

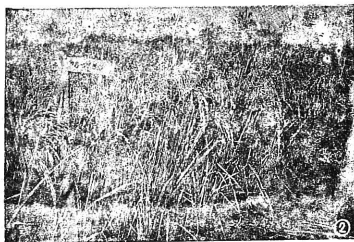
lands to double crop pattern without any extra expenditure to the Government. After these achievements towards the end of the decade, the development more or less seemed to head for a lull.

In the wake of the spread of ADT-27 to nearly the entire first crop area, the risk of lodging came to light as a severe threat to maximising its yield. The North-East Monsoon setting by October, lashes down the maturing ADT-27 crop. The crop lodges and grains germinate from the submerged crop. Especially in years when the release of water from Mettur Dam is delayed, this threat is very considerable. Since delayed release has become more or less a normal feature, the maturing crop in the tail-end areas of the delta as well as the upper areas get caught under

the heavy downpour of the rains. It is a sad plight that the farmers are to witness helplessly their crops being flattened and getting spoiled.

Measure up to the Problem

The I.A.D.P. was well aware of this problem as well as the panacea. It was a question of getting a strain of non-lodging trait. In 1969, I.R.-8 was promoted and this admirably withstood the onslaught of the monsoon. Its duration being 135 days, it did not fit in exactly the first crop season of just 100 to 110 days, and the succeeding second crop of paddy could not be raised in time and harvested early before the stoppage of water in the channels. However, the ryots having some supplementary irrigation facilities like filter-points tube-well or other sources,



Not good enough

were persuaded to raise IR-8 early and have the second crop also in time. Nearly a lakh of acres has the prospects for IR-8 and the rest nearly 4 lakh acres cultivated only on receipt of water in the channels has to be content with ADT-27 with its attendant problems.

The concern of the I.A.D.P. was at the beginning of 1969 to get a non-lodging strain of short duration to fit the first crop season. Normally, the procedure is to bring to the notice of the research wings, of the problem and wait for their recommendations. But the time lag inherent in laying the entire thing to research personnel alone, is rather repugnant to the I.A.D.P.

I.A.D.P. in 1969, took the initiative of asking all the research institutions in the country to suggest strains for the peculiar situation of Thanjavur. The Paddy Specialist, Coimbatore, the A.I.C.R.I.P., Hyderabad, and the C.R.R.I., Cuttack were already breeding short duration, short statured strains by crossing with IR-8 and TN-1 and they suggested some promising cultures.

productive efficiency was also sought to be gauged by undertaking the trials under two levels of fertiliser schedules—one as recommended for ADT-27 and another as for IR-8.

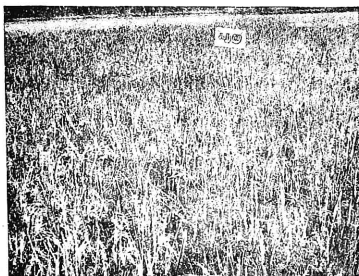
I.A.D.P. trained its extension men in laying the plots and conducting the trials according to the research standard. Farmers were chosen and 120 sites were selected in all the Development blocks of the district. The trials were soon laid, vigorous supervision was ensured and by the fall of 1969, results started pouring in. The results were then pooled and statistically analysed. In addition, farmer's opinions were solicited in six divisional seminars—as to their preferences.

The statistical enquiry as well as the farmer's verdict clearly pointed out the superiority of the culture 11321—a cross between ADT-27 and IR-8. Thereafter, this

As a result of discussion with Specialists stationed at Aduthurai some four cultures were selected for large scale trial all over the district for the study of their performance under all agro-climatic zones along with ADT 27.

In addition, the efficiency was also sought to be gauged by undertaking the trials under two levels of fertiliser schedules—one as recommended for ADT-27 and another as for IR-8. I.A.D.P. trained its extension men in laying the plots and conducting the trials according to the research standard. Farmers were chosen and 120 sites were selected in all the Development blocks of the district. The trials were soon laid, vigorous supervision was ensured and by the fall of 1969, results started pouring in. The results were then pooled and statistically analysed. In addition, farmer's opinions were solicited in six divisional seminars—as to their preferences.

The answer to the farmer's prayer



The Government of India have included a new Scheme in the Fourth Plan for the benefit of sub-marginal cultivators and agricultural labour. The scheme provides for programme for employment-oriented activities such as poultry, dairy-farming and agro-industries in order that sub-marginal cultivators and agricultural labour living on the verge of subsistence are effectively helped. The Government of India have provided Rs. 4.75 crores for the scheme during the Fourth Five-Year Plan. Thiru P. K. J. Menon, Programme Adviser, Planning Commission, had discussions with Chief Secretary

sub-marginal farmers. The guidelines for this scheme have been received from the Government of India only on 4th June 1970. The draft scheme communicated by the Government of India is being implemented with speed and vigour.

Need for a scheme

This scheme has been devised to assist the marginal farmers and landless agricultural labourers in view of the very high priority attached in the Fourth Plan to measures specifically designed to enable the weaker sections of rural population to benefit from the economic growth and development in the rural sector.

maximum exploitation of the agricultural potential in the area.

The scheme is intended to benefit—

(a) Landless agricultural labourers.

(b) Sub-marginal farmers having one acre or less of wet land or two acres and less of dry land ;

(c) Marginal farmers having one acre and up to two acres of wet land or from two acres and up to four acres of dry land.

Agricultural labourers will comprise of those having a homestead and earning 50 per cent or more of their income from agricultural wages.

Rs. TWO-CRORE SCHEME FOR THE ONE-ACRE FARMERS

on 27th April 1970. Thiru Menon had indicated during the discussions that the State Government are likely to get Central financial assistance to the tune of Rs. 2 crores under the scheme, and that 2 projects are likely to be allotted to Tamil Nadu under the Scheme. Based on these discussions, Government have taken a decision to implement the sub-marginal farmers scheme in the districts of North Arcot and Salem. It has been proposed that such of those farmers who own less than 2 acres of dry land or less than one acre of wet land could be considered as

The principal objective is to assist the sub-marginal cultivators in making the maximum productive use of their small holdings, by undertaking Horticulture, Animal keeping and Dairying, etc. The effort will be directed towards generating larger incomes by channelling credit, improved inputs and improved practices into these activities. These marginal farmers and specially the landless agriculturists will also be assisted with greater employment opportunities generated by such rural works, as may help in the

This project aims to cover about 20,000 families of all the three categories put together during the Fourth Plan period.

It is proposed to implement this project in four Community Development Blocks namely Chengam and Pudupalayam in North Arcot district and Valapadi and Pethanaickenpalayam Blocks in Salem district.

In North Arcot district these two blocks will be ideally suited for implementing the scheme for the following reasons :—

(1) In this area the percentage of marginal farmers and

the agricultural labourers as compared with the total rural population is quite high.

(2) Area is very much economically backward.

(3) There is maximum scope for implementing the schemes proposed under this project.

(4) Water table is fairly high and the underground springs are fairly copious for improving the irrigation facilities in order to increase the cropping efficiency. Further, the flow of the river Cheyyar through the Project area is helpful to recharge the springs in the wells and to feed a number of irrigation tanks.

(5) In view of the existence of the Javadi hills with good pasture, the project area is suitable for encouraging subsidiary occupations like cattle and sheep rearing.

The main objective of the scheme is to help landless agricultural labourers and farmers whose holdings are submarginal or marginal which cannot be considered as an economic unit in the four blocks of the Salem and N.A. district. To increase the productivity and economic facilities like irrigation, subsidy on investments will be given. Similarly landless agricultural labourers will also be helped by providing off-season work, Small backyard poultry units, etc. Special schemes to give them work during off-season are also contemplated in the project. (Source: Collector's Reports.)

IADP MOVES FROM SUCCESS TO SUCCESS

Having had the success in the maiden attempt of adaptive research in 1969, the I.A.D.P., proposed at the beginning of this year to undertake a similar programme for selecting a suitable strain for the second crop season. A strain to succeed Karuna in the second crop season has to be necessarily a medium duration strain with special traits of disease resistance and high productive efficiency. In fact, the overall per acre production of paddy in Thanjavur is year-in and year-out brought down by the poor performance of the second crop. A further break-through can be had only by a strain capable of giving yield on par with the first crop without much pests and disease attacks.

Now, there is a major adaptive research programme, in 120 locations and Mashuri IR. 20 and culture 11803 are being tried along with pankaj, to select a suitable medium duration high yielding strain for Thaladi. In the State Seed Farms simultaneously IR-20, IR-22, C-4-63 and Jaya, are being tried. Apart from this massive second crop trial programme, for samba, culture 11803, is being compared with Co. 25 and for Kuruvai also CR-1-6, IET-849, IET-400, culture

5652 are being compared with Karuna to test their performance in 12-13 locations.

For the first time, the problem of the semi-dry tract of Arantangi area has also been taken up and Pusa 2-21 CR-42-38, culture 7711 are being tried against Co-31 the strains recommended for this area.

In addition, in the field of plant protection also, the granular application of pesticides to control insect-pests is being taken up for the first time under the adaptive research programme. The various research institutes have found out the efficiency of applying pesticides in irrigation water as granules. Now, this has got to be verified and confirmed for Thanjavur and trials are being laid out in all divisions along with spraying practices.

Adaptive Research thus has become a programme of the I.A.D.P. with a view to give a push to the various research programmes and to verify the efficiency or otherwise of the new findings for Thanjavur District. This is a voluntary additional task taken upon itself and the potentiality is rather immense. (Source: I.A.D.P., Thanjavur.)

TEA PROCESSING

A breakthrough

Thanks to a breakthrough in tea leave processing achieved by two inventors of Tamil Nadu, the taste of tea will be better than ever before. The invention of a Tea Fermenting Drum, imparts superior flavour and colour to the product and improves its decantation properties. Thiru K. C. Krishnaswamy and Thiru C. Hariprasad, the inventors, have bagged the highest award of Rs. 10,000 given by the Inventions Promotion Board for the first time since its inception in 1960.

Tea is India's largest plantation industry and accounts for almost half of our foreign exchange earnings by way of exports.

The commonly used black tea is processed in factories from green leaves plucked from tea plants. There are four distinct processes through which the green leaves pass before black tea is obtained—withering, twisting, fermentation and drying. Withering is intended to take away moisture and thus condition the leaves to become less brittle and easy to roll and twist when passed under special machines. The withered and twisted leaves are called *Tea Dhool*. These operations are preparatory to the most important process of fermentation, which makes the leaves capable of yielding a well flavoured and desirably astringent beverage liked by most of us.

As in other processing industries, the trend in tea industry over the past many years has been towards automation, which necessarily means a change over from batch processing to continuous processing. Though improved techniques for other phases of tea manufacture have been introduced, no significant change could be effected in the method of fermentation. The conventional static process of fermentation consists of spreading the *Tea Dhool* on the floor in thin layers and allowing it to ferment under humid and cool atmosphere. This process does not allow uniform aeration and fermentation of the *Tea Dhool*.

Fermentation is a delicate operation. A slightly over fermented or under-fermented tea will have no comparison in value with a properly fermented tea, the price difference between the two varying by as much as 50—75 per cent. Effecting automation in fermentation, therefore, required careful attention and much thought.

The invention of Thiru Krishnaswami and Thiru Hariprasad developed after prolonged experimentation, is an *enclosed rotating drum with facilities for supply of air and oxygen* under controlled temperature and humidity. The very idea of imparting agitation to the *Tea Dhool* during fermentation was earlier considered harmful, tending to destroy the flavour of the finished product.

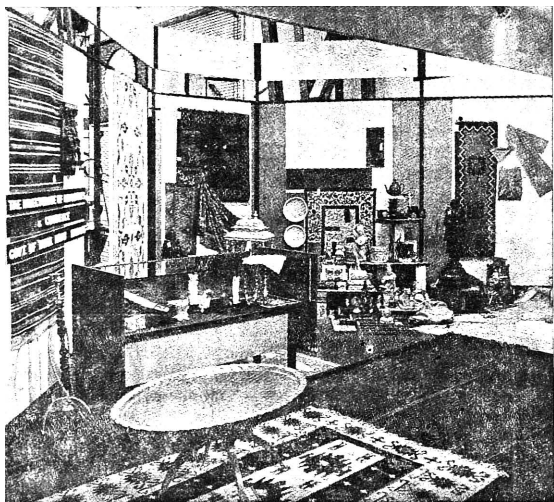
The inventors were confronted with considerable resistance and faced the prospect of unacceptability of their invention among the tea processing plants. But inventors cannot afford to be timid. Perseverance is the hallmark of success in such endeavours. Things began to change for the better when a lone planter came forward to give the technique a try: He got a good price for the tea processed by the new method, and the off-take was also high.

This method of dynamic fermentation of *Tea Dhool* in a steady stream of fresh, heated, cooled or moist air allows better aeration and also extracts the heat developed during the process resulting in improved quality of tea. Simple in construction and easy to operate and maintain the new device has made the fermentation process efficient, economical, speedier and hygienic. It saves 15—20 per cent of the time normally required for fermentation.

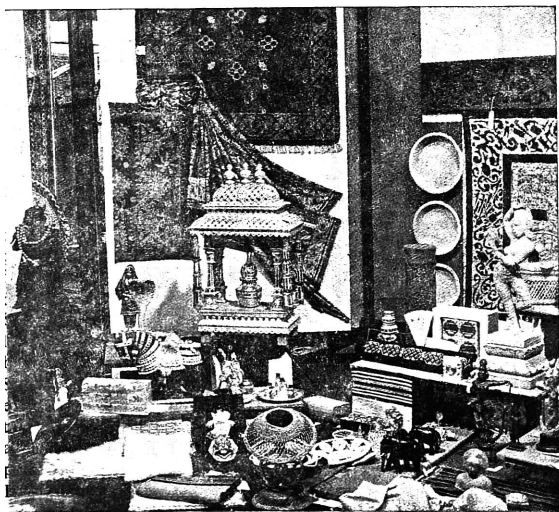
The process is versatile in that it can be adjusted to produce from blacker or gritty teas to brown or flaky teas. It also permits reconditioning of certain kinds of low quality brown dust into better grades of tea.

Manufactured by Messrs. Walker and Greig, Madras-18, today over 44 units of the fermenting drums are in operation in

(Contd. on page 34)



**DISPLAYED
ABROAD
TO TEMPT
FOREIGN
BUYERS**



SERVICING THE SMALL INDUSTRIES

The small industries Service Institute, Madras, has jurisdiction over the entire State of Tamil Nadu and the Union Territory of Pondicherry. Under its control, there are Extension Centres at Coimbatore, Madurai, Erode and Pondicherry.

The Small Industries Service Institute renders direct technical advice for setting up new small enterprises, on choice of machinery, design, fabrication, layout installation and operation of plant

and machinery. Designs and drawings for production equipment and accessories and assistance in improving the production processes are also provided. This Institute provides technical guidance on the efficient use of raw materials and utilisation of substitutes, salvages and scraps. Technical assistance is given in design and development of new products and bye-products, standardization and simplification of designs of existing products and also in the development of ancillary enterprises.

The Central Workshop at Madras and the Extension Centres provide servicing facilities to small scale units in the State. In the workshops attached to the Institute in Madras, there are facilities for pattern making, general engineering jobs, for physical and chemical testing of metals and for carrying out experiments in ceramics, glass blowing, etc. The Extension Centre at Coimbatore assists small scale foundry units by demonstration of foundry techniques. The Centre also helps small scale units in the design and development of electric motors. The Extension Centre at Madurai has a general engineering workshop where tool room facilities are available. The centre has also

ENCOURAGING EXPORTS

A Pioneering attempt was made by the Tamil Nadu Government in encouraging exports outside by participating in the International Trade Fair held at Sydney during October 1969. The Department of Industries took a stall measuring 30 sq. mtrs. The pattern of participation was that in addition to the products from the Departmental Handicrafts Emporium, products from private small scale industries were also given space in the Pavilion for display. A number of private units had participated through the Department of Industries. The Government of Tamil Nadu subsidised the cost of transport as well as charges for accommodation for the products of the participating units.

The response to the products of the Department as well as those of the private industries products from Tamil Nadu were encouraging and a large number of enquiries and orders were received. A representative of the Industries Department was also deputed for this Fair.

Following up this participation, the Government of Tamil Nadu, through the Industries Department, have subsequently taken part in the following Trade Fairs :—

(1) Expo. '70 in Japan.

(2) International Trade Fairs at Leipzig and Frankfurt.

(3) Indian Exhibition at Singapore and Kuala Lumpur.

Whereas for the Expo. '70 as well as for the Indian Exhibition at Singapore and Kuala Lumpur, Departmental Handicraft products were sent, for the Fairs at Frankfurt and Leipzig, products from a number of Small Scale Industries in Tamil Nadu were also sent under the aegis of the Government of Tamil Nadu. The following Units have participated in the Fairs :—

Messrs. Instruments & Apparatus (P) Limited, Madras-2.

Messrs. M.R. Electronics.

Messrs. L.G.B. Bros. (P) Limited, Coimbatore.

Messrs. National Electricals, Madras.

Messrs. Concord Arai (P) Limited, Madras.

Messrs. Fruitnik Delican (P) Limited, Madras.

Messrs. Tamil Nadu Food Processing Unit, Madras.

There were considerable trade enquiries for the products of these units and it is expected that as a result of this participation, the export from this State will receive an encouraging boost.

an electroplating section. The Extension Centre at Erode assists the leather tanning industry in finishing light and heavy leathers. Job orders are also undertaken by the Centre. The Extension Centre at Pondicherry has also a general engineering workshop to assist the local small scale units.

In addition, there are four mobile workshops, two for carpentry, one for blacksmithy and one for glass. These mobile workshops, as peripatetic training units, assist artisans in rural areas in adopting the new techniques for improving their skill and productivity.

Training Facilities

The Institute also conducts an Industrial Management Appreciation Course and Special Courses in Production Management, Financial Management, Marketing Management, Export Marketing, Cost Control, etc., with the assistance of guest speakers. Implant studies are also conducted on specific requests by small industrialists.

(contd. from Page 31)

various tea factories. The company has recently shipped a drum to Uganda.

Made of semi-hard aluminium sheets, the drum occupies, 35 sq. metre floor area and stands four metres high. The cost per unit works out to about Rs. 30,000.

The adoption of this invention by tea factories is bound to give a fillip to the Indian tea industry and increase its foreign exchange earnings.

In the Institute and the Extension Centres, regular and adhoc training courses for the benefit of artisans and supervisory personnel in blueprint reading, machine shop practice, foundry, blacksmithy and forging, carpentry, lens grinding and electroplating are also conducted. Besides, courses for the manufacture of footwear, glassware, neon signs, scientific glass apparatus and ceramics are also offered.

The Economic Investigation Division of the Institute is engaged in studying the problems of small industries and prospects for developing new small industries in Tamil Nadu. This Division has conducted Industrial Potentiality Surveys of all the districts in the State, besides several other area surveys. These surveys indicate the prospects for new industries in the areas. This Division also collects relevant economic data from small scale and large-scale units, not only for answering queries regarding industrial development but also to increase the all-India fund of information regarding growth of small industries.

Sub-Contract Exchange

The Small Industries Service Institute, Madras, has recently set up a Sub-Contract Exchange. This Exchange serves as a storehouse of technical and other information relating to small-scale industries and serves to facilitate ancillary development by bringing into contact large scale units desire which to farm out components and parts to small units and the small scale units which seek to serve the requirements of large scale industrial establishments.

Since 1961, the Institute has handled over 42,000 cases of technical assistance. On an average over two thousand enquiries for starting new industries are attended to every year. Officers of the Institute pay visits to small-scale units to give them on-the-spot advice; such visits have been over 7,000 a year, during the past few years. The Institute has given management training to 2,000 entrepreneurs, and technical training to an equal number during the past five years. During the current year, the workshop and extension centres have done over 7,000 jobs for various small industries. The Institute has been supplying technical schemes, design and drawings and other specialised literature for small-scale entrepreneurs.

A Guide and Friend

In short, the Institute's function is to take up any technical work which might lead to the strengthening of the existing small-scale industries in Tamil Nadu and for promoting new ones in the State. Whether it is suggesting industries for Rural Industries Programme, or export information to small Industries or by way of giving technical reports on small-scale industries to the banks or to the Invention Promotion Board or to other organisations, the various divisions of the Institute endeavour to function as a guide, philosopher and friend to small entrepreneurs in Tamil Nadu. Periodically the Institute is also organising conferences known as "Open House Discussions" in respect of various industries and regarding specific technical problems of industries. In these conferences, suggestions are given for solving the existing problems of the entrepreneurs and for assisting them in future.

(Contd. from page 13)

ornamental plants. The one acre swampy land in front of the park was completely drained and an attractive sunken garden was laid.

Seed Collection Centre. Observational studies revealed that Kodaikanal is an ideal place for the collection of seeds of almost all annuals. It was also found that plants like cyclamen, Begonia, cineraria, ranunculus, etc., which are considered typical glass house plants elsewhere in India are doing well in the open.

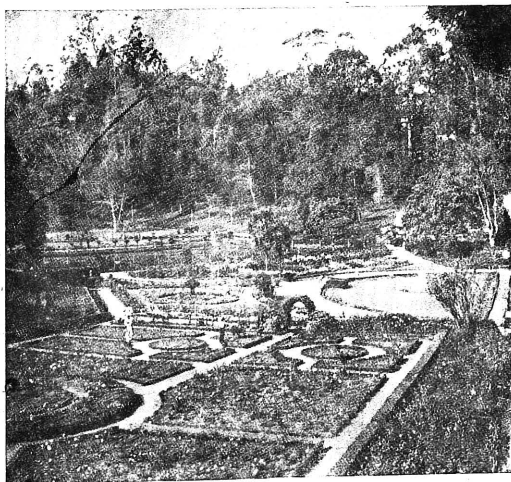
Studies on keeping the quality of cut flowers with and without the aid of chemicals, studies on the response of soilless culture on ornamental plants as well as propagational studies are underway. This park is also responsible for the formation of the

Kodaikanal Agri-Horticultural Society in 1963 which holds an Annual Flower Show in May every year. An annual expenditure of Rs. 45,500 is being incurred to maintain this park.

The park is now concentrating on cut flower export trade. A programme for raising long-stalked cut flowers of Agapanthus, Arum Lily, Watsonia, Red hot poker, day lily, Delphinium and selected rose varieties has already been taken up for export trade through the State Trading Corporation. A consignment of the above flowers sent in April to the Ghent flower show at Brussels was received favourably.

From the modest beginnings, the Bryant Park has now grown into a major project of many-sided importance.

A view of the Bryant Park



(Contd. from page 13)

Aside from the efforts of individual undertakings, the Ministry of Petroleum and Chemicals has undertaken a co-ordinated effort to accelerate the setting up of ancillary industries in the 14 public sector undertakings under it. The Ministry of Petroleum and Chemicals convened a meeting of Heads of Public Sector Undertakings in October 1970 and the undertakings were asked to expedite their programme for setting up of ancillary industries.

Aside from the ancillary industries, the Ministry of Petroleum and Chemicals is also actively encouraging the setting up of small-scale industries in the Plastic Processing Industry; in Pesticides formulation which so far has been confined mainly to DDT, BHC, Endrin, Aldrin, etc., and in drugs and dyestuffs where small scale industry will need to get the raw materials at reasonable prices and they would have to have direct quality control and have a more efficient retailing of their product.

To conclude, I have shown that the setting up of ancillary industries could help to solve one of our immediate and pressing problems, namely, that of unemployment and it is necessary that every entrepreneur looks at this problem in a correct perspective. As I have pointed out, with the rapid growth of India's population, the problem of unemployment will increase and it will be necessary for the Government and the enlightened industrial community to gear up the machinery to provide employment opportunities to our fellow countrymen. I wish you to bear this thought in mind when you go around the stalls of this Exhibition and with these words, I declare the exhibition open."

CATERING *takes care* **of** **NUTRITION**

When it comes, to eating out, everyone has a nostalgic memory of a small place where the cook, cashier, and manager were all rolled into a single person serving the delectable dishes. The small clientele would all sit around this single purveyor of edibles and eat to their heart's content, right from the sizzling pan. Everyone of this small coterie would long cherish the memory of those delectable eats. But soon as clients increased in number, discontent reared its head and led to a collapse of the establishment or sneaky commercialisation inexorably ending in sacrifice of quality, service and other virtues. A homely trade has grown into a business of huge dimensions without the virtues of all that we used to hold dear in those charming little eating places of yester years. Without any conscious effort those purveyors to the limited clientele were giving us the benefit of the highest form of catering service.

That service could not be transferred to the Leviathan that the industry has grown into. The other alternative is to put that homely service in the form of technology into the Leviathan! This spells the need for a separate institution to train personnel for the catering industry.

The challenge

The change-over is a challenge to those who deal with food preparation and service which is called the catering trade. Technical training in catering industry in its various fields is now accepted as the only method by which the people involved in this trade can acquire the required skills needed by this important segment of industry.

Under the present systems of mass

production and mass distribution, the nutritional aspect seems to have been completely ignored. This had been mainly due to lack of adequate knowledge in the field of Nutrition by those who are associated with the Trade, insufficient time, keen competition among the units, improper and faulty management practices and techniques, ignorance about purchasing, storing and bad accounting methods.

A class in progress



Vast research has already gone into the nutritive value of our foods and the peculiar niceties of our food preparation methods which either destroy or add to the nutritive content of our foods. The urgent need is also felt to bring this research to the kitchen of the housewife as also to the hotel kitchen. Happily, the Institute of Catering Technology in Madras not only trains personnel for hotels and canteens, but is also a training ground for applied nutrition. Four such institutes of Catering and Nutrition one each at Bombay, Calcutta, Madras and New Delhi, have been set up.

These institutes offer full-time courses in Hotel - Management, Cookery, Bakery and Confectionery Restaurant and Counter-Service, Hotel Reception and Book-keeping. There is also a course in Food Preservation and Canning extending for a period of one year. Both theoretical and practical training is provided to all the students in the various courses. Special courses for housewives are provided in Cookery, Bakery and Confectionery over a period of fifteen weeks.

Students who are admitted to the full time diploma course in Hotel Management get training in a variety of subjects such as Nutrition, First aid, Hygiene, Basic Science, Restaurant and Counter-Service, Book-keeping, Housecraft, Cookery and Catering Management. They are also given a course of lessons in French language !



A far-sighted Step

In order to prevent our existing catering establishments from becoming centres of food poisoning, the Corporation of Madras has incorporated a new bye-law in the Act governing the grant of licence to these establishments. The bye-law runs as follows : The amendments to the bye-laws (Corporation of Madras) also suggest that " If the local autho-

rity arrange for training of food handlers in food hygiene, it is obligatory on the part of the management of food establishments to send their employees for training to such institution for such period as may be prescribed by the Health Officer." In this connection, it is suggested that the Institute of Catering Technology at Madras may be entrusted with the responsibility of

organising condensed and short term courses for these personnel as they have the requisite facilities in this direction. There is also provision for organising " Elementary Course " of seventeen weeks' duration wherein subjects like Cookery and Bakery, Hygiene, Book - keeping, Nutrition, Management, Restaurant and Counter-

Service, Food Costing are included. Such a course will be highly useful to persons associated with industrial canteens, hospitals, Railways and other catering establishments. Just as we say public sector should be a model employer so too in this direction we expect public sector undertakings to take a lead and sponsor their candidates to get useful training in these fields instead of



House-wives are also trained

adopting the antiquated methods of trial and error."

Why such fuss about cooking which has come so naturally to mankind over the years and why teach it? A senior Lecturer in Nutrition in the Institute answers this succinctly: "After all what does cookery mean? It is the knowledge of all herbs, and fruits and spices and of all that is healing and sweet in grapes and savoury in meat. It means carefulness and inventiveness, watchfulness, willingness and readiness of appliances. It means in fine that you are to see imperatively that everyone has something nice and wholesome to EAT".

In the Technological Campus

Located in the sprawling technology campus of Madras in Adyar, the Institute of Catering Technology has been sponsored jointly by the Governments of India and of Tamil Nadu. It started functioning in 1963. The Institute is situated in a most congenial environment along with other Technological Institutes

like Central Polytechnic; Institute of Leather Technology, Institute of Chemical Technology, Institute of Commercial Practice, Women's Polytechnic, Institute of Film Technology, Mat-Science and Technical Teachers Training Institute in what is proudly called Technological Campus. The Government of Tamil

Nadu offered the site for the construction of the buildings free of cost and the Government of India have borne the entire Capital Expenditure on the buildings and the equipment. The Recurring Expenditure is borne equally by the State Government and Government of India.

A course for housewives

In response to the very great demand the institute started, a

part-time course for the housewives in Food Preservation from this year. The demand for Housewives courses has increased so much that the Institute had to admit two batches in Bakery and Confectionery in the second session of this year. The Harijan Welfare Departments of the State Governments of Tamil Nadu and Andhra Pradesh are sanctioning Scholarships to the Students of the Scheduled Castes, Scheduled Tribes and Backward Classes respectively. The Institute awards Merit-cum-Means scholarships to about 10 per cent of the students in each class, the value of the scholarship being Rs. 420 in the first year and Rs. 840 for the second and third years. The South Indian Hotels and Restaurants Association have been kind enough to Institute a scholarship of the value of Rs. 300 per annum to a deserving candidate with merit.

Pleasing Room decorations for hotels is also taught



Tudiyalur Co-operative Agricultural Service Society, in Coimbatore district of Tamil Nadu is an institution combining under the system of a single institution almost all the important services needed by the agricultural country. This Society was started in 1955 as a rural co-operative bank with 330 members and a share capital of Rs. 37,000. Since then it is continuously growing and has now 5,000 members with Rs. 7.50 lakhs share capital. Its area of operation covers 13 revenue villages and 56 hamlets. Nearly 25,000 hectares of garden land and about 4,000 hectares of dry land are served by it. The Society has loan fertiliser sections, a mixing section, a seed multiplication division, a complete pesticides unit with equipment, a cattle feed and poultry division and an agricultural machinery division. They cater not only to 5,000 members but also to those of other co-operatives in the district through a network of nearly 86 agent societies dealing in various products of this society.

Besides advancing medium and short-term loans, the institution deals in farm machinery of various kinds. It is also on rate contract agreement with the Tamil Nadu Government for small tractors and spare parts. A service station for repairing these units, specially the sprayers is being maintained. The World Organisation "CARE" had donated to this institution, tractors with complete range of equipment machines along with other workshop faci-

lities costing nearly Rs. 8 lakhs. These were for custom service to members.

The Society since its inception is handling the entire production of pesticides in the country. Under the licence, it is storing all heavy poisonous chemicals and is using them for the benefit of agriculturists. It has also been permitted by the State Government to sell chemicals at subsidised rates to agriculturists. After having gained considerable experience of distribution of pesticides and insecticides, etc. it decided to set up a unit for manufacturing pesticides and insecticides. The State Government

SALIENT FEATURES OF THE SUCCESSFUL TUDIYALUR CO-OPERATIVE SOCIETY

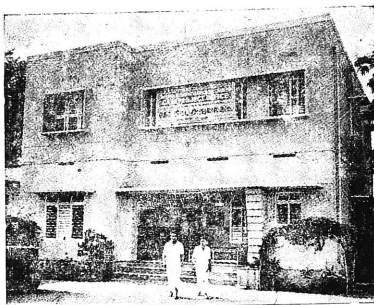
forwarded its proposal for approval and financial assistance to the National Co-operative Development Corporation. The proposal was sanctioned by the Corporation last year.

After having gained considerable experience in the distribution of Agricultural machinery, the Society has also decided to establish a workshop for fabrication of agricultural implements. It has sent a project proposal to the N.C.D.C. for financial assistance.

Apart from distribution of fertilisers, the Tudiyalur Co-operative is maintaining a pesticides division handling all the pesticides and effecting sales under subsidised rates under directive from the State Government. This is the only Co-operative institution in the State having a 'A' licence under the poisonous chemicals Act and handling pesticides to the tune of 3 to 4 lakhs of Rupees per annum for the benefit of its members. Supply of pesticides is supported by organised squads with spraying equipments for effecting complete coverage of pest control activities. It has 180 sprayers under the nominal hire system on a no profit no loss basis to give complete coverage for pesticides. Besides it has its own service station (a modern and up-to-date unit with able technicians) to undertake all repair functions of sprayers and equipments. Under agency terms with Indo-German Project, Bangalore, through Rallis India Ltd., it is handling sale of sprayers throughout the district for the benefit of the agricultural community. It has a modern cotton seed multiplication-cum-processing unit with 6 numbers of Gins for multiplication and processing of seed material for the State Agricultural Department. It undertakes seed multiplication work on 2,000 acres of member lands year after year by providing all the inputs, technical, know-how, etc. Under agency rights it handles all hybrid seeds as agents of the National Seeds Corporation throughout the

State. It has established a modern cattle feed unit at a cost of Rs. 3 lakhs to prepare scientific cattle feed and poultry feed under the able management of a dairy specialist. Apart from the above, through its Agro Service Centre this institution is handling basic agricultural requirements like cement, hydrose, iron materials, agricultural tools and sundry materials needed for the day to day agricultural operations.

Under the CARE donated agricultural machinery rental scheme it owns for the present 5 Nos. of tractors with all equipments, trailers, 2 Nos. of rock blasting units, 3 Nos. of winnowing and thrashing machines, power winches, ably supported by a modern training-cum-repair workshop to handle all repairs of the vehicles of the institution besides attending to the repairs of the members units as well. A training programme covering



The CARE—assisted Farm Tools Centre.

six weeks is being imparted to intending farmers' sons to handle these machinery and also to drive the same under licence. The whole scheme costing Rs. 30

A massive Dairy Development Scheme and Poultry Development Scheme costing Rs. 6 lakhs per quarter is to be implemented.

lakhs. This again being the additional donation by 'Care' in view of the appreciable services to the agricultural community by way of mechanisation of farming operations. The entire project is ably handled by an Agricultural Engineer.



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An Agro Tools-cum-Machinery Insurance Scheme at a cost of one per cent of the cost of machinery is being implemented through this institution to give a complete coverage for farm machinery.

The Institution is putting up a pesticides formulation unit at a cost of Rs. 5 lakhs, for the benefit of the agricultural community of this district. An agro tools fabrication workshop and a vegetable processing-cum-tinning industry is to be started immediately for the benefit of the members. A scheme for the establishment of a soil testing laboratory has been sent to National Co-operative Development Corpn. To summarise.

(1) This institution has 6,000 members—actual growers covering 20,000 acres of garden land, two crops an year, 6,000 acres under dry farming covering a population of 85,000 people in its area of operations.

(2) Its activities are spread over the entire district of Coim-

batore through other co-operatives serving as its agents—for manure, mixed fertilisers, agrottools and implements, sprayers, dusters, cattle feed, poultry feed, distribution of quality hybrid seeds, etc.

(3) It has within its fold a pesticides formulating plant, seed processing plant, an agro tools fabrication plant manufacturing sprayers, electric motors, pumpsets, tractor parts and the like scheme in the offing.

(4) It has the 'Care' machinery rental project serving the members with rentals of tractors, implements, rock blasting units, winnowing and threshing machines besides a modern workshop to repair the ryot's units and offering training facilities.

(5) It has its own rental scheme of pesticides spray units with a modern workshop to repair complete range of sprayers and equipments.

(6) It has undertaken Pumpset Insurance-cum-Servicing Scheme for the benefit of its members.

(7) It is formulating a Modern Dairy Scheme for the benefit of its members.

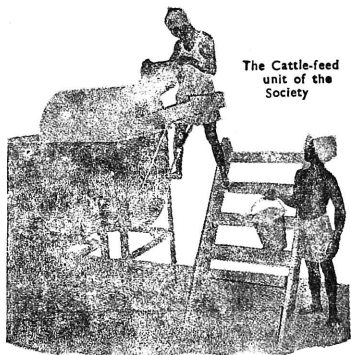
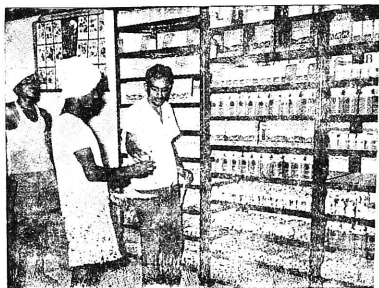
(8) It is financially viable and sound with a share capital of Rs. 5 lakhs, with a deposit of Rs. 13 lakhs and a turnover of business grossing 50 lakhs of rupees per annum and other assets running to Rs. 8 lakhs.

(9) An M.Sc. post graduate in Chemistry has been inducted as Vice-President of the society.

(10) It is a multipurpose organisation giving all agro services to its members under one single roof.

(11) Since inception the institution is earning good profits and succeeded in the various schemes formulated by it because of its judicious planning and prudent management.

It handles pesticides for the entire district



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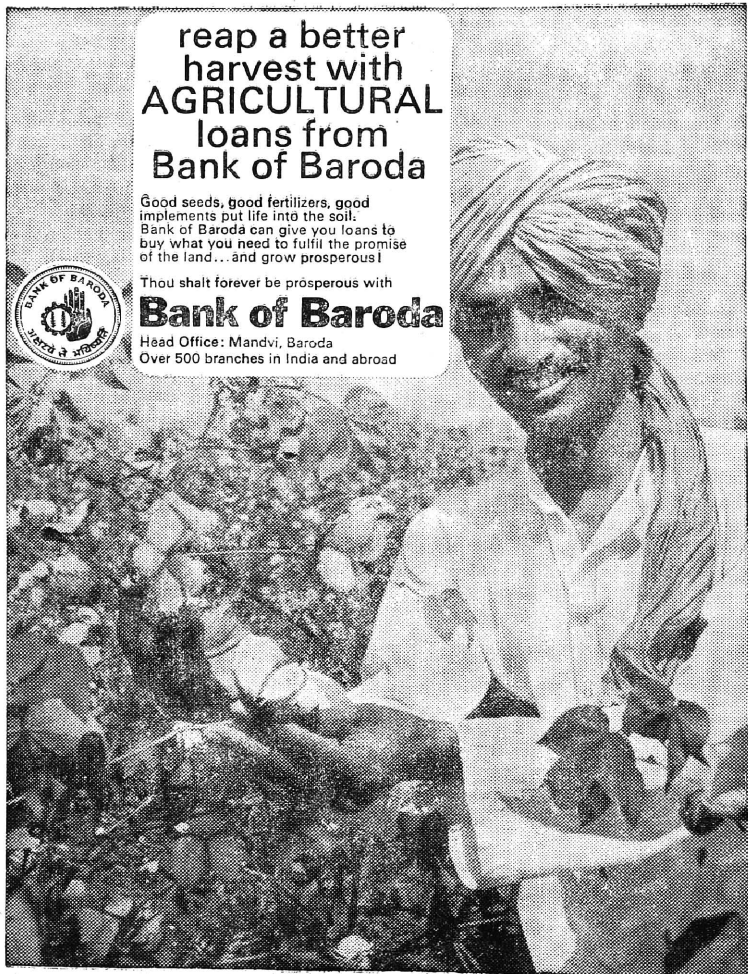
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SCHEME FOR ABANDONED CATTLE

The Madras SPCA (Society for Prevention of Cruelty to Animals) established in the year 1887 is the *oldest* animal welfare organisation in India.

The Patron of the Society is the Governor of Tamil Nadu and the President is always a sitting Judge of Madras High Court.

The Society functions in a vast estate of its own in Vepery High Road donated by a munificent donor of last century. The SPCA's animal hospital was made use of to train Veterinary College students to start with and for this reason, the Veterinary College was built opposite to SPCA in Vepery. Even now a part of SPCA campus is occupied by Veterinary College stables and servants quarters.

The Society has eleven Inspectors in the field, armed with

powers under the Prevention of Cruelty to Animals Act (Central Act 59 of 1960) to launch prosecutions of the offenders.

The Society believes that for the well-being of animals, it is not enough if persons perpetrating cruelties on them are punished. It has firm faith in the efficacy of continuous process of mass education against overloading, using sick animals, overcrowding, starvation, exposure to elements, neglect, animal sacrifices in "Pujas", etc.

The Society's other services are to house the

owner's pet dogs when owners leave the City till they return, to keep sick dogs in its kennels and take them up and down, the hospital and to take up post-operative care.

A Familiar sight



To do "grooming" of pets in a special Dogs' Saloon and de-ticking, hair clipping, nail cutting, shampooing and talcum applications are expertly undertaken. There is a vast clientele for this special saloon, and foreign visitors were all praise for it.

But the most challenging and rewarding problem of the day is that of stray cattle in the city.

The *stray cattle* pose a serious threat to traffic and health. The owners leave their cattle to stray about. The Police are doing their best. Still the highways and bylanes of the city are

S.P.C.A. WORKS FAST TO SAVE LIVES

teeming with cattle of all sorts—they range from a tender calf to a dry cow or an aged bull.

Where there is a heap of garbage, these unfortunate creatures flock and leisurely chew the impossible menu for the day. Later they select busy thoroughfares and unmindful of human activity and traffic, they settle on all fours to chew the cud. "No Parking" plots are their rendezvous.

On the spot blood—transfusion for a cow injured in an accident



Accidents to animals and to vehicles on account of animals are on the increase. The SPCA's telephone rings to announce a bull hit by a taxi and the taxi driver speeding away leaving the animal unattended on the centre of the road.

There is a case of the Station Master phoning SPCA to tell the case of a pregnant cow being knocked down by a train near Perambur.

SPCA's large animal ambulance rolled fast to the

scene, lifted the unweildy beast which was profusely bleeding. It was promptly admitted in hospital and utmost was done.

The abandonment of bull calves and bulls is the "unkindest cut of all" in the matter of cruelty to animals in the city.

The milkmen as a tribe are heartless in their treatment meted out to calves in general and bull calves in particular. They decide the day they are born to do away with them because they do not benefit them, and are considered most uneconomical. Therefore, they either deliberately kill them or indirectly make them die by sheer starvation.

Milkmen who have some scruples still left in them don't kill them but drive them out as abandoned. These abandoned bulls and calves in the city are every where !

They ransack the dust bins, pull down wall posters but just to keep their body and soul together, knock down street urchins or get themselves hit by fast moving automobiles.

There is no agency to take census of such abandoned cattle, but just "by rule of the thumb" method, one can safely assume that they will touch an all time record mark of a lakh. What a National waste of cattle wealth !

A boon it shall be, if all these are salvaged, moved out of city limits, rehabilitated in a pasture land. The SPCA has sponsored a scheme to save the abandoned bulls and to supply them to farmers, free or at nominal cost.



The Tamil Nadu Police has crowned itself with glory at the All-India Police Duty Competitions held at Simla from November 10th to 17th, 1970. The Championship Shield in the Scientific Aids to Investigation Competition, went to the Tamil Nadu Team for the third year in succession. As a measure of improvement on last year's performance, the Tamil Nadu Team also annexed the runners-up shield in this competition of intelligence in using the new tools of crime investigation. The Tamil Nadu Team also won the coveted Lord Hardinge's Challenge Shield for First Aid and Ambulance. Individual Rolling Trophies were won by six members of the Tamil Nadu Team in the following competitions : Medico-Legal (oral), Finger-print, Photography, Police Portrait, First Aid and Revolver Shooting. The total medal tally of the team was six gold, nine silver and four bronze. The Welfare Exhibits were adjudged the best in the country, and 36 of these entries won prizes. The six individual gold medal winners are :

- | | | |
|------------------------|-----|------------------------------------|
| (1) Medico Legal | ... | Inspector D. Manoharan |
| (2) Finger Print | ... | Inspector J. Ramamoorthi |
| (3) Photography | ... | Sub-Inspector S. Selvarathinam |
| (4) Revolver Shooting. | ... | Sub-Inspector Vasudevan |
| (5) Police Portrait | ... | Assistant Sub-Inspector Kameswaran |
| (6) First Aid | ... | Constable Krishnamoorthy |

QUICK TO

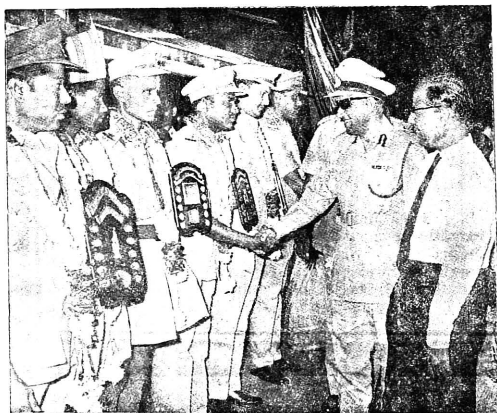
AND ACTIVE TO PREVENT FIRE

The Fire Service saves lives and saves property, but we think of it only in distress. In the year 1969 the department attended to 5,240 calls to save Rs. 331 lakhs in property. The Fire Service is alerted by dialling No. 101 for all emergencies and is ready to save an animal in distress with as equal facility as in rescuing men and women in danger.

The Fire Service Department attended to five thousand two hundred and forty calls in 1969 as against nineteen thousand four hundred and eighty-three in 1968. The officers of the Fire Service carried out 9,022 inspections of places licensed or to be licensed under the provisions of various Acts and Rules, with a view to preventing possible

fire accidents. They also carried out 1,999 inspections of Government buildings as against 957 in 1968 to ensure adequacy of fire protection measures.

The Village Fire Watching and Fire Fighting Squads continued to function in 1969. During 1969 they rendered assistance on 43 occasions.



HEROES' WELCOME

Heroes' Welcome to the 56-member Tamil Nadu Police Team by Inspector-General of Police at Madras Central on 23-11-70.

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Places of Interest

Madras - Mahabalipuram - Kanchipuram - Chidambaram

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Rameshwaram - Ooty - Kodaikanal - Yercaud.

Contact:

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