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CONTENTS

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	PAGE
Independence Day	4
Those Twenty Days	6
Toned Milk	11
Dapog	13
Kanyakumari	15
Nursing the Infants	19
From the Ramparts	22
Fort Saint George	27
Power for Prosperity	31
Water Logging	37
Collegiate Education	39
The Silk that lasts a life-time	43

COVER PAGE

Thiruvalluvar K.A. Mathialagan, M. Karunanidhi, P.G.
Karuthiruman, Farook Marikar outside the College
De France, Paris, where the Third International
Tamil Conference was held.

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INDEPENDENCE DAY

We are to-day celebrating the Independence Day. I would like, on this occasion, to share with you the joy and the inspiration which the day provides. This is hailed as a Red Letter day not merely by the people of India but by people of different countries of the World.

The fifteenth of August is cherished as the day when India became independent, when the national flag was unfurled everywhere by a proud people and when we started the era of self-rule. History will record it as an epoch-making day and poets will sing about its significance in metres of inspiring beauty.

This is no doubt a great day and indisputably a land-mark in our history. We are aware this is the day on which the whole world acknowledged our right to freedom and sovereignty.

This day evokes memories of the great deeds of days gone by and the lessons that they carry. What visions of prosperity and of strength for the country would the heroes who fought for the advent of this day have had in those days of struggle? It is but meet that we should this day recall those roseate dreams of those who fought for freedom.

Freedom is now a reality. And we live in free India with the right to rule ourselves. But, we should ask ourselves: "Do we really live? Do we?"

There is a gulf of difference between living and existing. The majority of us are only in the position of saying that we somehow exist and not live joyously.

When divisions and dissensions disappear and all are treated as equals, when no one will be kept down and no one will have to supplicate, when exploitation will cease; when, with the fruits of labour accruing to him automatically, the worker beams with happiness, only then can we say that we have created the conditions for good living. As long as we are unable to create these conditions, we have no right to claim that we live.

The ideal nation

If even after the advent of independence, poverty and ignorance, differences and divisions continue to afflict us, what will others say and whom will they hold responsible for these conditions? Now that we are ruling ourselves, we have become responsible for our prosperity as well as our adversity.

The fifteenth of August, in the initial years contributed to our joy, inspiration and heroic pride. But, today, it fills us with a tremendous sense of responsibility. We had, long ago, pledged ourselves to win freedom and to have self-rule. Are we sincere and steadfast in our efforts to achieve our ideals? What should we now do to achieve our goal? The fifteenth of August, this year, casts that great responsibility on us.

Two thousand years ago, the great Tamil Poet Thiruvalluvar said: The ideal State is one where there is no hunger, disease or enmity. Twenty years have rolled by. Each year we celebrate our Independence and sing its praise. But have we succeeded in bringing into being the State envisioned by Thiruvalluvar? We would be committing a serious mistake if we imagine

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Anna's Radio Talk

A DAY OF RECKONING



that we would, by raising this issue, spoil the festive joy of the Independence Day. I want to raise this issue not to evoke feelings of weariness, bitterness and despair but only to strengthen our resolution to do better.

Eradicate social maladies

Ours is a land of enormous natural resources; yet, our people are steeped in poverty. We cannot forget this. There is evidence of prosperity, but it is enjoyed by the privileged few. And we cannot hide this. Also we cannot but concede the fact that growing population has been marched by growing poverty.

We should not rest in the easy confidence that we have won freedom and that we have the strength to defend it. Rather we should take pride in the firm faith that we are capable also of achieving a good life for our people.

We had the strength and the courage to wrest independence from the mightiest of imperialist powers. We should become intensely aware that the same strength and courage could be exercised to rid the country of poverty and ignorance, differences and divisions.

The corner stone

Those who hoist the national flag, organise the spectacular celebration of the Independence Day and pay homage to the heroes and martyrs of the freedom struggle—would these alone help us achieve our goal? No.

The peasant who toils in the field unmindful of the heat of the noon-day sun, the worker who produces a wide range of goods in a variety of

industries, the teacher who helps knowledge blossom in the minds of children, the persons serving in the fields of medicine and public health to provide relief to the suffering and the sick, the engineering personnel who stem the flow and fury of the rivers with dams and make the water available for irrigation and power and who also build smiling townships, the men and women who man the administrative services efficiently and well—these constitute the corner stone of the edifice of our prosperity. They are the guardians of our freedom. I salute them. For, they give meaning and content to freedom by the success gained by their efficiency and skill.

Proud strides, bright eyes and smiling faces do gladden our hearts this day. That is not enough. We should become aware of our duty and resolve to do our best for the progress of our country. Our prejudices and partiality, our rights and privileges should be subordinated to the all-important, common duty of working for the prosperity and welfare of our people.

A day of stock-taking

This is not merely a day of rejoicing; it is a day of stock-taking. Let us find out how much we have given to promote the welfare of the country, how much and what more we have to give in the coming years.

The first day of Independence marked the reckoning of our accounts with the British Imperialist power as also the opening of new accounts regarding our achievements.

(Broadcast over the All-India Radio, Madras, in Tamil on 15th August 1967.)

A DAY OF STOCKTAKING

THOSE TWENTY DAYS

2. At Bombay

The Tamil residents of Bombay had gathered in great enthusiasm at the airport, to accord a reception to us. On behalf of the Government of Maharashtra, Thiru Shivaji Rao Patel, Minister, was present to receive us and he took us all to the lounge. Nanjil Manoharan, M.P. and Murasoli Maran, M.P. had accompanied me from Madras in order to see me off at Bombay. The Delegation from the Corporation of Madras led by the Mayor had also travelled in the same plane on their way to the Soviet Union.

Soon after alighting from the plane, I had to address a public

Thiru M. Karunanidhi

meeting organised under the auspices of our Party in Bombay. The general expectation had evidently been that I would deal at length with political topics in the course of my talk. But I restricted the subject-matter of my speech to my projected foreign tour and I also availed of the occasion to convey my greetings to Thiru V. P. Naik, Chief Minister of Maharashtra, on his birth day. Our plane was to take off for Rome at 2-00 a.m. and I thought that until then I could rest at the airport. But that was not to be, for they woke me up when the clock struck twelve. Then there was the job of changing into coat and pants. Our

comrades in Bombay congregated to have a look at me in my new attire but not all of them had come for mere send-off alone. Among the friends were quite a few, with petitions at the ready. Comrades hailing from the Tirunelveli District had in particular, a sizeable problem for elaborate discussion, pertaining to the village of their origin. Although they were regular residents of Bombay, they were taking energetic interest in the affairs of their native place and they were resourceful enough to take advantage of my transit through Bombay, for presenting their case to me. Thus, petitions pursued me up to Bombay, but do you think I could get respite from them in Paris and London? Certainly not, but about that I will refer to at a later stage.

After taking leave of Manoharan, Maran, Amirtham and other comrades and friends at the Bombay airport, we boarded the plane bound for Rome. I was told that the plane would reach Rome at 6-00 a.m. "Only a journey-time of four hours that is excellent indeed", I said. Imagine my chagrin when I was informed that the arrival-time in Rome was 6-00 a.m. according to the Italian time. The Indian Standard Time would then be 10-30 a.m. and that meant a journey of nine hours nearly!

The plane was airborne in a few minutes. The air-hostesses brought out trays laden with artistically-designed goblets filled to the brim with choice liquor and they seemed rather surprised when

we declined the spirituous refreshment. In a short while they returned, this time with orange-juice instead of alcohol. The efficiency and service-mindedness of Air India impressed me very much indeed and I was really happy to observe later that my opinion in this regard was shared widely in the countries of the west.

As the plane sped on, thoughts arose in my mind in a telescopic chain—thoughts about the glorious city which would greet my vision at 6-00 a.m.

Rome! The beautiful capital of Italy. Rome's status as the capital of Italy is more than a century old and the centenary of the City in that distinction was celebrated with *eclat* on 20th September 1969. Florence was the Capital of Italy earlier, and Rome took its place on 1st July 1871. By a curious coincidence, I too had set out for Rome from the Capital of Tamil Nadu, on the first day of July.



Although Rome became the Capital of Italy only in 1871, it had been founded over 2000 years ago. The River Tiber is like the boundary of Rome and it is also like a moat for the city. The people of Rome shall never forget a certain warrior who stood firm on the bank of the River and defended the city from the onslaught of alien hordes.

Horatius was the name of this hero of unrivalled valour. That was the time when the governmental administration of Rome was in the charge of the Consul. The Roman Monarch Lucius was a tyrant *sans phrase* and his son Sextus was a chip of the old block. Not only that, Sextus was a veritable beast who wrought a deed of shame on a good and gentle lady by name Lucretia who thereupon took her own life but not before imploring her husband and her parents to wreak vengeance on the guilty prince. Her poignant last wish churned and kindled Roman hearts and turned them into volcanoes. The entire populace stepped into the streets and the tide of their righteous ire chased out the arro-

gant king and his bestial son. Would they, who have been deprived of their posts and positions, ever resign themselves to their lot? Some may do so, taking the rough with the smooth but there are others who would stoop to any extent and fall at anyone's feet in their desperate predicament, thereby providing a spectacular index of their unabashed lust for power! Lucius topped the list of the latter category of persons, and accompanied by his son Sextus he went and sought the aid of King Porsena of Clusium. Porsena listened to the petition and he agreed to help Lucius regain his throne. At the head of an army of a hundred-thousand soldiers, Porsena set out to invade Rome and as the battalions marched, numerous cities and towns were wiped out under their tread and countless were the granaries that went up in flames.

A singular point of strength of Rome's environmental defence was the hefty wooden bridge across the River Tiber, for the bridge provided the only entry to the city. Horatius, the captain



of the Gate, was on duty at the further end of the bridge and he was flanked by his comrades-in-arms Lartius and Herminius. The enemy hordes, thrice thirty thousand strong were approaching fast and the roll of their war-drums and the tramping of their horses sounded like the very thunder while the flash of their swords was dazzling in its menace. And yet, the vast and tumultuous army stood awestruck, for the nonce, as it neared the bridge, for confronting its coercive might was the quiet valour of three determined individuals who stood firm with drawn swords, ready to give up their lives rather than see their dear City enslaved. The invaders had to take their chance and they sallied forth one by one and in groups, only to fall a prey to the deadly swords of Horatius and his friends. Warriors on horseback then essayed to gain passage, but their mounts

were sliced off from under them, and they too had to bite the dust.

Astur was a commander of the enemy-forces and he dismounted to give fierce battle to Horatius. Horatius sustained a bleeding wound on his leg but he did not yield ground. He smote his assailant on the head with his sword and the victim sank to the ground.

In the meanwhile, the people of Rome had been busy at the other end of the bridge and their efforts were centred on destroying the bridge so that the enemy may be denied easy access to the City. City fathers and commons plied hatchets and crowbars to break up the planks above and the props below the bridge. Just before the structure of wood collapsed and crashed into the River, the two comrades of Horatius raced back to the safety of the City,

whereas Horatius was too pre-occupied to heed the warning-cries of the townspeople behind him. So there stood brave Horatius all alone, with thousands of alien soldiers before him and the broad flood behind.

Undaunted stood the hero, even as the vengeful hordes were preparing to rush on him in their hundreds. Turning to the River he intoned :

" Oh Tiber! father Tiber!

To whom the Romans pray,
A Roman's life, a Roman's arms,

Take thou in charge This day."

So saying, he leapt into the River while the Romans gasped in agony and anxiety and the Tuscans sighed in relief at the thought that they had seen the last of one who had struck terror in their hearts. But soon a wonder came to light, for the waves of Tiber appeared to cradle Horatius and lift him to safety. The hero reached the bank where he was greeted with deafening cheers. He who had held a hundred thousand enemy-soldiers at bay and saved the City, became an idol to the Romans. The people of Rome installed a statue for Horatius in the heart of the City and "they gave him of the cornland, that was of public right, as much as two strong oxen could plough from morn till night." And it is said that :

".....wives still pray to Juno

For boys with hearts as bold
As his who kept the bridge
so well

In the brave days of old."

As the plane sped on, excitement mounted in me at the thought that within a few hours I would be able to have a glimpse of the field of battle where Horatius stood in the strength of solitude and defied death to wrest victory against fearful odds. I would be able to have a glimpse of the historic River Tiber which received into its broad flood the blood-drops of invincible valour.

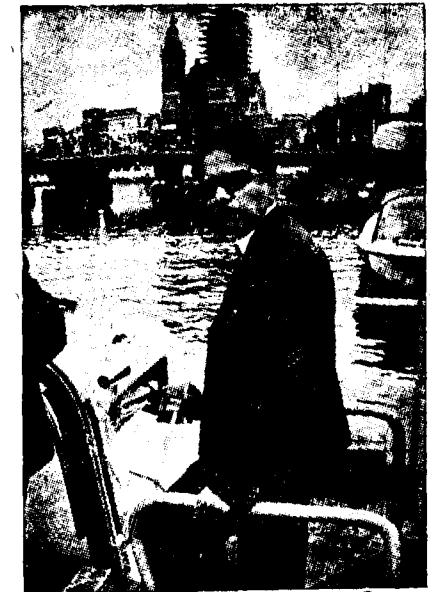
The glorious history of Roman heroism does by no means stop with Horatius. Why speak of warriors alone? Has not the world been enriched for ever by the creations of Roman artists and architects, intellectuals and connoisseurs?

It would look like dawn beyond the window of the plane and I

used to feel that we were nearing Rome. But within minutes, darkness would again engulf the skies and this pattern repeats itself quite a few times during the air-journey from Bombay to Rome.

Throughout the twenty days of my tour abroad, I retained the Indian Standard Time on my wrist-watch and when I wanted to know the local time at any particular place, I used to consult my neighbours. The hands of my watch helped me to keep mental track of the general routine back at Madras, to reflect whether people there would be at their dinner or at work or in slumber...

Italy juts into the Mediterranean Sea to an extent of about 725 miles from the North-West



to the South-East. The breadth of the land differs from point to point and even as one flies over the country, one is able to get a conception of the land as a peninsular region.

The hands of my watch pointed to 10:30 and the soft voice of the air hostess conveyed the information that we were nearing Rome and the plane would touch ground in the next few minutes. The announcement turned on a fountain in my heart and I was all atingle to think that, for the first time in my life, I would be setting foot on foreign soil.

The plane slid down the ladder of air and came to rest on solid ground with all the humility the Indian plane is heir to. We alighted, all eager to pay homage to the valorous soil of Rome sanctified by the foot-prints of heroes and braves who made history and carved for themselves a definite niche in the temple of fame. (To be continued.)



The Food Front in Tamil Nadu

Two lakh tonnes of rice are now lying with the Government of Tamil Nadu as "Buffer Stock." Hence there will not be any procurement for "Kuruvai Crop" in Thanjavur district.

The producers or the traders will be allowed to export rice or paddy freely from one district to another within the State after the harvest. In case producers found it difficult to get buyers or in the event of prices coming down to the detriment of the producers, the Government would organise purchasing centres.

The Tamil Nadu Government has lifted with immediate effect the 15 per cent levy on the turnover of wholesale dealers in rice and paddy now in force in all the districts except Thanjavur district.

As regards Thanjavur district the 50 per cent levy as well as check posts around the district would be removed with effect from 15th September 1970.

Food Corporation of India, the Government of India undertaking has been allowed to procure stocks of foodgrains in Tamil Nadu.

Robberies Decline

According to a Home Ministry release on "CRIME IN INDIA 1968," Tamil Nadu presented bright picture with a decline of 77.8 per cent in Robberies.

The number of Robberies committed in Tamil Nadu in 1968 is Two only against NINE in 1967.

Guided Self-Employment for Technicians

With a view to encourage self-employment among the diploma holders, a novel scheme has been introduced in Tamil Nadu Polytechnic, Madurai during 1969-70 for young unemployed diploma holders who are residents of Madurai City with the co-operation of the local industries, who are giving small job orders like turning of bolts and nuts, making fasteners, components and machine parts, cross-arms for electric posts and small structural fabrications.

The diploma holders avail themselves of the facilities in the Polytechnic workshop and execute the jobs. It has been found that all the 20 students admitted to this scheme were able to make about Rs. 8 to Rs. 10 each per day after meeting the hire charges for the use of machinery in the Polytechnic and other incidental expenses.

The Principals of Polytechnics in other Centres in Tamil Nadu have also been permitted to introduce the scheme in their institutions.

Rehabilitation of Kalpakkam Fishermen

Dr. Sathyavanimuthu, Minister for Agriculture and Harijan Welfare inaugurated two housing colonies for fishermen in Solavankuppam and Padur on 18th July 1970. These colonies comprising houses for 30 families in the former village and 13 in the latter represent the rehabilitation effort of Government for families of fishermen disrupted by the location of the Atomic Power Plant at Kalpakkam.

About 327 families of Fishermen living in the following villages had to be accommodated elsewhere.

	Families.
1 Kalpakkam ...	85
2 Pudupattinam ...	136
3 Edaiyur (Inland). (Marine)	15
4 Kokilamedu ...	30
	61
	327

The Government have sanctioned a sum of Rs. 4.9 lakhs for construction of houses for rehabilitating them in other villages.

Each house costs Rs. 1,500 out of which Rs. 500 is given as subsidy and they have to repay Rs. 1,000 as interest free loan recoverable in 10 years. These houses have R.C.C. roof and are pucca fire proof. One hundred and thirty houses are nearing completion at Uyyalikuppam and they will be handed over to the fishermen in a short time. The programme for rehabilitation of the rest of families under the phased programme is being pushed through vigorously.

City housewives these days are quite familiar with toned milk. It is a substitute for whole milk. In some respects it is an improvement on milk.

Toned milk is made by mixing skimmed milk powder with water to which whole buffalo milk or cream is added in measured quantities. Toned milk contains three per cent fat and nine per cent solid-non-fat. Recently under UNICEF milk distribution programme, another grade of milk called "Double Toned Milk" has been introduced. It contains 1.5 per cent fat, and ten per cent solid-non-fat.

Like whole milk

Toned milk is almost like whole milk except that it is low in fat. It contains three per cent fat and nine per cent solid-non-fat, which includes proteins, minerals and milk sugar. Toned milk is easy to digest. The fat content in the buffalo milk is very high, ranging between six per cent and eight per cent. The content of solid-non-fat is also between nine per cent and ten per cent. For taking as fluid such rich milk is not necessary. By merely adding water to the whole buffalo milk, the percentage of both the fat and the solid-non-fat is reduced. But by adding skimmed milk to the mixture, the solid-non-fat is "toned up" to the original level as in pure buffalo milk.

As a source of protein of a high quality, toned milk goes a long way towards meeting the essential amino acid needs of our body. The protein requirements of an adult are between 50 and 60 grams per day. The key protein of milk is casein which supplies a greater portion of the essential amino acids, required for growth and health. Forty ounces of milk, taken daily meets most of the protein needs of the young child.

A concentrated food

Toned milk is a far more concentrated food than most of us

Toned Milk Meets all Your Needs

may imagine. It contains 13 per cent of solids by weight. This much of solid content is more than the solid content of many vegetables and fruits. Lactose, the milk sugar, holds a unique position in carbohydrates and as in whole milk it is found in toned milk. Sufficient quantities of it help assimilation of calcium and phosphorus. Toned milk contains the same amount of vitamin B-Complex as whole milk.

Milk is also a rich source of indispensable minerals, particularly calcium. And therefore,

it is specially good for growing children, as they need calcium for the development of their bones and teeth.

For children and mothers

Toned milk is well suited to children and expectant and nursing mothers, as it supplies a great deal of energy and minerals for the rapid growth of children.

Just like whole milk, toned milk, and double toned milk can be used for making tea, coffee, curd, etc.

In planning diets, we must not overlook some nutrients lacking in toned milk as well as in whole milk. Milk is deficient in iron and copper. Just like whole milk, toned milk is also deficient in Vitamin C, and for that reason it is customary to supplement the milk diet of infants with orange or tomato juice which are good sources of this vitamin. For adults, green leafy vegetables and jaggery are inexpensive but good sources of iron in the diet.

WFA scheme

Toned and double toned milk are made available in Madras City through 135 depots run by Madras Milk Project, Madhavaram. Toned milk is made from skimmed milk and butter oil supplied by the World Food Agency. The proceeds of the sale of the reconstituted milk are credited to a separate fund for raising the milk production. ●



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D A P O G



Dapog or Suruttuppai Natrangal as it is called here was first introduced in Thanjavur

The new method of raising paddy nursery known as "Dapog" has been recently introduced in India from Phillipines. Thiru M.Karunanidhi, Chief Minister of Tamil Nadu, has aptly described this method of nursery as "Suruttuppai Natrangal" as it can be rolled like a mat and transported to the field. This method has gained popularity in Thanjavur district of Tamil Nadu. Many farmers of Chingleput, North Arcot and Coimbatore districts are adopting this new method.

To raise this nursery, field is not required. Polythene sheets can be spread and nursery may be raised at any place where sunlight is available. Even Banana leaves may be used instead of polythene sheets.

Half a cent "Dapog" nursery is adequate to plant one acre of land while 10 to 12 cents of nursery is essential under usual method. Further the seedlings raised under "Dapog" method will be ready for transplanting in about 12 to 14 days. But under the usual method, seedlings will be ready only in 3 or 4 weeks after the seeds are sown based on the duration of variety and availability of water supply. Therefore, it is needless to say that this method is more advantageous than the usual method.

Method of raising

* Beds of one metre width and of any convenient length are prepared with channels all round. Twenty square metres of beds are sufficient for raising nursery to plant one acre of land.

*The surface of the bed is packed tight and kept at uniform level. The beds are covered with polythene sheets or banana leaves. Saw dust or small bits of straw are spread over polythene, or banana leaves upto a thickness of one inch.

*The pregerminated seeds are sown uniformly over the saw dust or small bits of straw at the rate of 1.1 to 1.5 kg. per square metre.

*The seeds are kept moist by watering with water sprinkler thrice a day.

*The germinated seeds are gently pressed with bare hand both in the morning and evening so that the root system may not be exposed.

* One centimetre of water is maintained in the nursery during the second week, by raising the edges of the nursery beds under polythene sheets with mud. Watering with rose can both morning and evening is given.

* The seedlings are ready for transplanting in 12 to 14 days when 3 to 4 inches tall.

* The seedlings raised over polythene sheet can be rolled and transported easily to the field.

While planting. . .

1. The main field should be well levelled for planting.

2. At the time of planting, the water in the mainfield should not be more than $\frac{1}{2}$ inch in depth.

3. As the seedlings are very thin and slender 4 to 5 seedlings should be planted per hole.

4. Planting should be done at a shallow depth of 1 to 2 centimetre so as to induce quick and maximum tillering.

5. Seedlings more than 16 days old are not fit for planting.

Advantages

1. "Dapog" nursery may be raised in any place such as field, kitchen gardens, concrete threshing floors, open terraces of buildings, etc.

2. Less space is required for raising nursery under this method. Half a cent nursery will do for planting 1 acre.

3. Transplanting may be taken up earlier as the seedlings are readily available in 12 to 14 days.

THE EARLY MAPS

In 1752, i.e., five years before the battle of Plassey, the French Geographer D'Anville published in Paris his map of India containing all the available knowledge of the country then. The records of the routes taken by travellers and rough charts of the coast, etc., were his sources in preparing this map. Southern India by virtue of its long sea-board received comparatively better attention in this map. The English edition of this map was published in 1754. Major Rennel, Surveyor General of Bengal, after retirement from service produced a map of India in 1788 which was partly founded on D'Anville's map. Col. Scott's map in two sheets of the Madras Presidency engraved by Walker, was yet another effort in map making.

The Tamil Nadu Archives has a number of maps belonging to the 18th Century. They are extremely interesting. Some of them are :—

(1) Map of the East India Company's lands on the coast

4. Ploughing is not necessary for this method. Operations such as weeding and pulling of seedlings from nursery are not required.

5. No need to manure this nursery as the seedlings utilise the food contained within the seeds till 14 days.

6. Transporting of seedlings from nursery to mainfield is very easy, as the nursery is rolled.

of Coromandel published by Alexander Dalrymple, 1778 (published by the East India Company's approbation.) Scale : 2 inches to a statute mile.

(2) Madras and its environs in 1733 and 1862 to illustrate the annals of "Madras in the Olden Times" by Talboys Wheeler Scale : 2 inches to a mile.

(3) Plan and situation of the Fort and Pettah of Coimbatore 1783; and plan of Dharapuram, 1783.

(4) Map of Coimbatore and Dindigul Provinces by Thomas Flott De Haviland, 1st May 1800 closely after the conquest of Mysore. The map is dedicated to the President and Members of the Revenue Board. - Scale : 69 $\frac{1}{2}$ British miles to a degree.

(5) A Trigonometrical Survey of the Bay of Coringa, 1789. Scale : 500 Fathoms to an inch.

(6) Map of the "Province of Madura" surveyed in the years 1804, 1805 and 1806. Scale 2 miles to an inch. The map shows Circar lands, assumed palayams and unassumed palayams.

7. Less water is required.

8. Roots of seedlings raised under usual method will get damaged while pulling out from nursery. But roots of seedlings raised under this method will not get damaged and this will facilitate early establishment of seedlings in the main field.

9. Seedlings raised under this method will ensure maximum yield.

NURSING

CHILDREN'S HOSPITAL,
EGMORE—THE BIGGEST
OF ITS KIND IN INDIA

While the child is under treatment in the hospital, the child's mother gets instructed on child care and nurture; while treating the 'problem child'; prone to lying and stealing, the same hospital advises the child's parents on the correct parental attitudes necessary for the proper emotional development of the child.

This is how the Children's Hospital, Egmore works and this is why it has become one of the centres selected for training senior pediatricians from all nearby countries who take the examination held on the subject in London every year under the auspices of the W.H.O.

Peripheral Clinics

The Children's Hospital treats on an average 1,000 to 1,500 patients per day as out-patients and has facilities for treating 250 in-patients. In addition, the hospital has devised a system of peripheral clinics where the staff attend to the sick children and impart the health education to mothers of the registered patients, in four centres in the City. This concept of peripheral pediatric clinic first developed in this hospital has since been adopted in other hospitals of our country.

Because of the high standard of diagnostic and treatment facilities in this hospital, it attracts

patients from all parts of the State and neighbouring States as well. The hospital is planning to stretch its pattern of child care to all districts in the State.

The Institute of Child Health and Hospital for Children, started functioning in its new buildings from 15th November 1968. This new building was constructed at a cost of over Rs. 32 lakhs and has 250 beds. This is the Largest Children's Hospital in India. This Hospital has separate sections for Pediatric Medicine, including New-born Services and separate Premature Unit which is located in the adjoining Women and Children's Hospital, Infec-

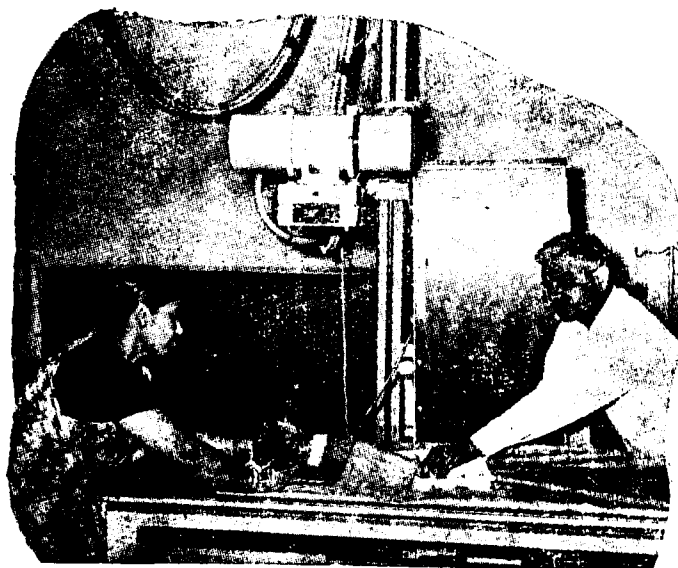
tious Diseases Unit, Pediatric Surgery, E.N.T., Radiology, Dental, Physiotherapy, Bacteriology department, etc. The Biochemistry Laboratory of this Hospital is well equipped and uses micro and semi-micro techniques, so that with minute quantities of blood from the child patient, the physician and Surgeon obtain useful data for treatment in a matter of minutes.

The casualty Department of this hospital is open all the 24 hours of the day and is equipped with all apparatus and medicine for emergency treatment and has also a few observation beds where children in a critical condition can be kept and treated without any waste of time.

Child guidance clinic

The hospital also runs a Child Guidance Clinic which tackles 'Problem Children' prone to lying and stealing and emotional stress leading to delinquency





Surgical treatment for new born

A fairly good percentage of neurotic disorders like Anxiety Reaction and conversion reaction are attended to in the older age groups in this clinic. Cases of mental Retardation and Cerebral Palsy are completely investigated and the parents are advised about their proper management and placement in Institutions when necessary.

The 'problem children' are given a complete physical check up by the Pediatrician to rule out illness, mental retardation and physical handicaps. The Psychiatrist interviews, the child patient and the parents individually when the child can express himself better. In all cases situational adjustment is aimed at, in treating a child and the parents are advised about the importance of correct parental attitudes to satisfy the basic emotional needs of children for the proper emotional development of their own child. Where necessary, the psychiatric social worker interviews the parents, visits the child's home and

school to children are guided and helped and the parents also are enlightened. A separate clinic gives speech training to children suffering from impediments in speech.

The Pediatric Surgery Department caters to almost all surgical problems seen in new born and older children.

Specialised attention

Highly specialised form of attention is paid to the new born. About 1,000 major operations and about 5,000 minor operations are done in this department annually. The Department caters to D.Ch. and M.D. students and also M.S. General Surgery Students and trains them in the recognition and management of surgical diseases in children. In addition, two students per annum are entertained for the M.Ch. (Pediatric Surgery) which is the highest



Child guidance clinic.

degree in this field. In fact this is one of the first centres to start M.Ch. speciality and the work in this department has been highly commended by many visitors including the World Health Organisation Consultant. The W.H.O. Consultant has recommended the department as fit for affording post-graduate training in Pediatric Surgery.

Pioneering research

This Institute is on the World map of pediatrics for its pioneering research on liver, nutritional disorders of children and many other problems. The first Chair of pediatrics in India was created in this Institute, as this is the only hospital of its kind in India which has all the pediatric auxiliary services under one roof, including a first rate Medical

Records Department. Last but not least important, is the fact that older children and mothers of patients can use the books from a branch library of the Local Library

Authority located in the hospital premises.

The Institute not only teaches medical under-graduates and post-graduates, para-medical personnel and auxiliary personnel like Nurses, Health Visitors, Social workers, Red Cross workers and



Grama sevikas, etc., but also groups of students from Arts Colleges studying M.A. Sociology and other college students who are interested in doing voluntary social service. Refresher courses are also held for the Public Health personnel like Health Officers, Health Inspectors and Health Visitors.

Speculations about Indus Valley Civilisation

Incorrect reports about the proceedings of the World Tamil Conference held at Paris last month appear to be in circulation, particularly in regard to the alleged views of some delegates to the conference that the Indus Valley civilization does not represent proto-Tamil or proto-Dravidian civilisation. In a research conference of this kind, scholars are expected to express their research findings freely in order that the pros and cons of any problem may be fully thrashed out and conclusions arrived at on an objective and scientific basis.

On the question of the Indus Valley script (not civilisation), there were three principal speakers at the Paris Conference, Dr. Asko Parpola (Denmark),

Dr. Kamil (Czechoslovakia) and Thiru I. Mahadevan (Tamil Nadu). The preliminary findings of both Dr. Parpola and Thiru Mahadevan were that the Indus Valley script represented a proto-Tamil or proto-Dravidian language. Dr. Zvelebil on the other hand held that the methodology and conclusions arrived at by Finnish and Russian scholars were not convincing and were still in the realm of speculation; even he did not say however that it was not proto-Tamil or proto-Dravidian.

The work of decipherment by Dr. Parpola and Thiru Mahadevan is still incomplete and I have a hunch that, when these scholars complete the decipherment, they would be able to

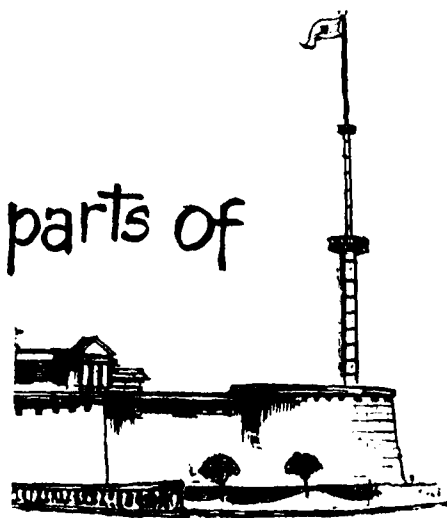
convince even sceptics like Dr. Zvelebil, who is a well-known and devoted Tamil scholar.

Incidentally, Thiru Mahadevan is the only Tamil speaking scholar (notwithstanding his being a civil servant) who has undertaken a scientific study of the Indus Valley script and it is hoped that the Nehru Fellowship recently awarded to him for pursuing this work, for the next two years, would enable him to decipher the script in a manner which would carry conviction to the academic world.

Meantime the Scandinavian Institute of Asian Studies is also seeking the assistance of a Tamil scholar to help their scholars in the decipherment of the Indus Script—A. SUBBIAH.

From The Ramparts of

THE FORT



The celebration of the Independence Day last year in Tamil Nadu was an important event for all of us. It was during the last year's celebrations that for the first time in India, leaders of all the political parties were invited to participate in the function, emphasising the national character of the Day. On that occasion the Chief Minister of Tamil Nadu Thiru M. Karunanidhi said :

"Twenty-two years have passed since we attained Independence. Only now, for the first time, we are celebrating the Independence Day in the Capital of Tamil Nadu, under the auspices of all the parties.

"We are indebted to pay our homage to all those martyrs who

gave their blood and life; those who had suffered a lot, those who were deported in the course of freedom struggle. In preserving our precious freedom we should work together without any party differences.

"The lead we give to-day will be an example of our determination to work together to fight any enemy of our country. And to remind ourselves of this resolve the next year also we will celebrate the Independence Day under the auspices of all the parties."

As the Chief Minister said, this year also we celebrated the Independence Day with the participation of all the parties under the tallest flag-mast of India at the historic ramparts of the Fort Saint George.

Tamil Nadu which has given the lead in so many other fields has again given this lead.



AT THE SERVICE OF THE COMMON MAN

It is now three years and five months since, we—a few of the common people—came to power in Tamil Nadu. Reminding ourselves that we are the representatives of the poor farmers and workers we are formulating schemes for their welfare. With the limited powers available to the State Governments we are doing our best. If we get more powers our efforts will also increase to that extent; we will try to eradicate poverty by expanding the avenues for a better life.

From the Independence Day Radio talk of the Chief Minister broadcast on the 15th August 1970.

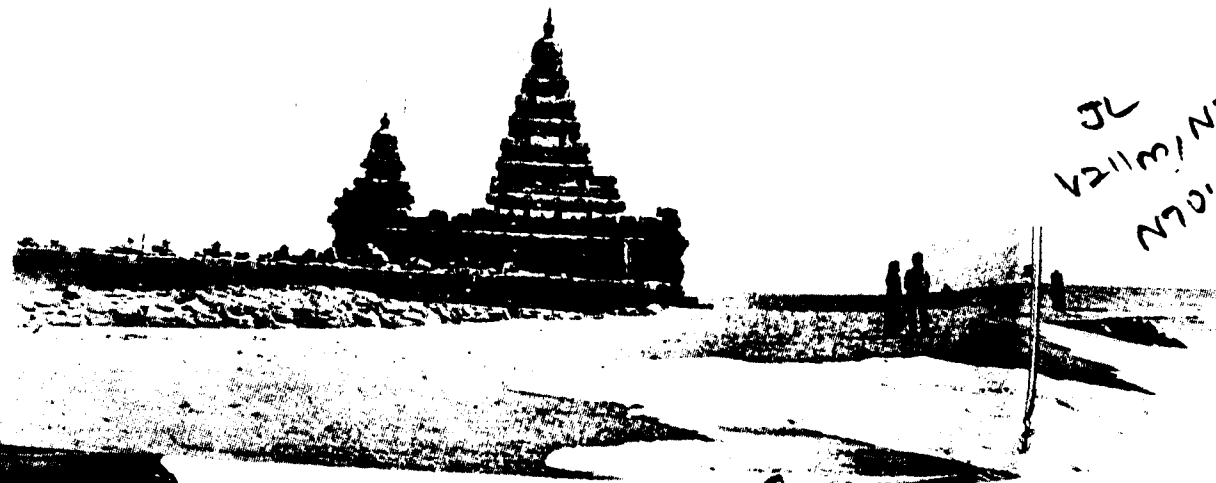
PICTURE PAGES

Opposite page : Last Year's Independence Day Celebrations.

Centre spread : A few of the ageless Mamallapuram stone carvings.

Last page : Pictures of the Third International Tamil Conference. Chief Minister's inaugural address ; leader of the Tamil Nadu delegation. Finance Minister's address etc.





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BY
Thiru S. SINGARAJAN,
M.A., M.LITT.,
Director of Archives

THE HISTORIC FORT SAINT GEORGE

Part II—The Beginning of Taxation

(This is the second part of the article. The first part appeared in the August 5, 1970 issue of Tamil Arasu.)

Greenhill administered the settlement until the 1st September 1652, when Fort Saint George replaced Bantum as the Company's Eastern centre of Government, and President Aaron Baker arrived from Java and assumed charge. Greenhill remained at Madraspatanam, retaining the title of Agent throughout the period of Baker's rule.

The first Governor

In 1653, Fort Saint George was raised to the rank of a separate Presidency, independent of Bantum, and Mr. Aaron Baker who was the resident Agent became the first Governor. The first direct communication between Madras and England occurred in 1642-43, in which the Agent and Council impressed upon the Court of Directors the absolute necessity of giving due equipment to the fort. In 1644 the money expended on the fortifications amounted to Rs. 22,940 and it was computed that Rs. 20,000 more would be required with a garrison of one

hundred soldiers, to render the station impregnable to the Indian Princes. In 1645 a renewed grant for the settlement was obtained from Golcondah. In 1651, orders having been received from England not to add to the strength of the fort, the Agent stated that unless the fort was strengthened trade could not be extended. Similar representations were made in 1652 on receipt of the news that a war between England and Holland was imminent. In 1654, however, the Directors ordered that the civil establishment should be reduced to two factors, and that the guard should consist of only ten soldiers. The English Trade on the Coromandel coast then declined, as a consequence of the inland wars and the superior force of the Dutch by land and sea.

The St. George's Standard

It is interesting to note that even in 1673 when Bombay flew the Union Jack, Madras displayed St. George's Standard; and Fryer's drawing of the White Town shows the cross of St. George floating from the Fort flag staff. In 1687 the Company expressed surprise that "you had worn any other than his Majesty's Union flag these last two years,

which is of absolute necessity for you to do, and our positive order that you shall always wear His Majesty's Flag." On the 12th June 1688, the Union Jack was accordingly hoisted on the 'English Bastion' of the Inner Fort in the presence of the Civil servants, the three companies of the Garrison, the Training Bands, and the Principal inhabitants—Europeans and Indians, to be brought down finally only on 15th August 1947, after 259 years.

East India Company

In 1698, Bengal was made independent of Fort Saint George. In the same year Thomas Pitt, grand-father of the celebrated Earl of Chatham, succeeded Higginson as Governor of Madras. Disputes now arose between the old or London Company and the newly formed English Company. The old company was the Scotch East India Company originally embodied by King James I in 1617. This led to the depression of trade, and the circumstances finally brought about an amalgamation of all traders to India, under the appellation of the 'United East India Company' established under Queen Anne's Charter in 1702.



The Tax

In October 1680, there were difficulties of internal administration at Madras. A strike took place regarding taxes amongst the inhabitants who dyed local calicoes and were known by the name of painters and the whole body left the Company's Jurisdiction and went away to Santhome threatening to assassinate such local servants of the Company who refused to join them. These men also prevented provisions and goods from entering the town. The Governor in Council thereupon entertained a hundred Portuguese to keep watch over the calico-washers, that they might not follow the same example. The wives and children of the mutineers were taken out of their houses in Black Town and driven into the pagoda; and it was proclaimed by beat of drum that unless the mutineers delivered themselves up within ten days, all their houses, goods and cattle within the jurisdiction of the Company would be confiscated. After eight days the ring leaders were arrested at Santhome and brought within the Company's territories. These were committed to prison; and on the same evening the rest came into the town and surrendered.



The Directors had been for a long time anxious to raise a quit rent from all the householders in Madras, local and European. They hoped, by so doing, to defray the yearly charge for repairs and fortifications. Mr. Steynsham Master, the Governor had succeeded in raising some such tax; utilising it, however, not for repairs or fortifications but for promoting the sanitation of the "Black Town." On his departure the local population of Black Town petitioned against the tax, and the new Governor Mr. William Gyfford abolished it.

Again Mr. Gyfford was compelled to levy a small monthly tax on all the inhabitants. The heads of the Castes were sent for, and they were told that if they were not willing to pay this tax they must sell their houses and move elsewhere. They agreed to pay annually "nine fanams for every big house, six fanams for every small house and three fanams for every little round-house." The matter nevertheless was kept in abeyance till January 1686, when in consequence of peremptory orders from England Mr. Littleton was appointed to collect the tax. A tumult ensued and all shops were closed. To suppress the

sedition, an armed force was called out. Proclamation was made that if the heads of the castes did not submit themselves before sunset, their several houses would be pulled down, the ground would be sold, and themselves and their families would be banished from the town for ever; and that if the bazaar-people did not open their shops and carry on business as usual, their shops would be confiscated and a fine would be imposed. The next morning the heads of the castes appeared before the Council, and stated that they would not obey orders, but on preceiving that the latter were determined, they submitted.

Use of slaves

The use of slaves for domestic purposes in Madras was then recognized, and sales and purchases were invariably registered at the Choultry. The iniquitous practice of stealing children for export was, of course, illegal, and John Leigh's severe condemnation in 1653, will doubtless be remembered. Thirty years later fresh complaints resulted in an absolute prohibition against the exportation of slaves of any age.

In 1687, however, the trade was recognized, under regulation, a duty of one pagoda being exacted for each slave sent from Madras by sea. The accounts of the sea Customer for September 1687, show that no fewer than 665 slaves were exported during that month. Slaves were also purchased for the service of the Company.

First Police Force

Sir Thomas Chambers, Governor, gave a cowle to the Pedda Naik who undertook to guard the town of Chinnapatnam (Madraspatnam). Twenty peons were at this period a sufficient police. They were paid in small duties and customs and some paddy fields. To Thomas Chambers, Agent of Fort Saint George

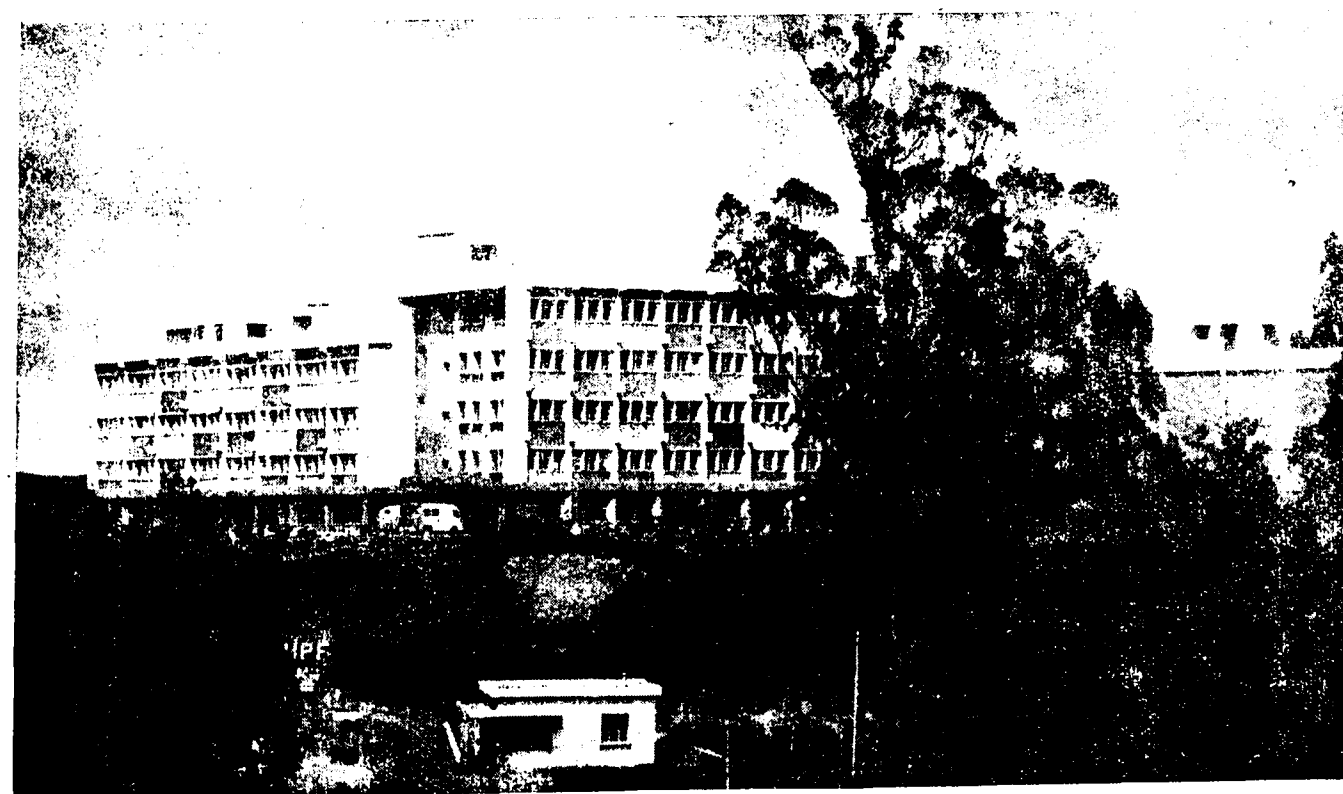
belongs the credit of organising the first police force, for the protection of property in Madras. From the earliest times a kind of Watchman duty had been performed by a native called the Pedda Naik. This man entered into a contract to provide twenty men for a certain sum to keep watch over the property of the inhabitants. But both the Fort and Black Town were growing in size, and the Pedda Naik's duties increased. He complained that the sum of money was insufficient to supply the requisite number of watchmen. His petition for a larger subsidy was entertained and he was assigned certain paddy fields together with some small customs on common articles of consumption. For this he provided fifty

watchmen, who were to be responsible for the orderliness of Blacktown, and for the good conduct of all the local inhabitants of the Fort. These arrangements, made by Chambers, served very well for the next quarter of a century, when they had to be reorganised on account of the bribery and corruption that went on.

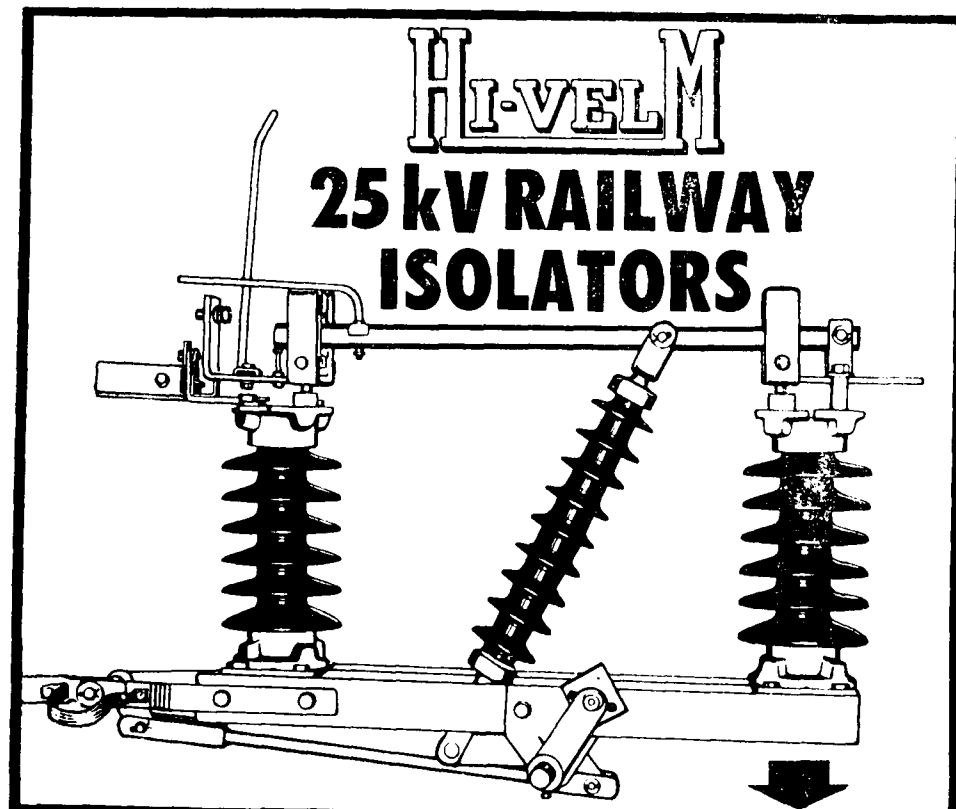
Municipal Service

Streysham Master, one of the early Governors of Madras, did a great deal in organising the town for Municipal purposes. He resolved to impose a house tax and to appoint a servant with power to collect this tax and to hire coolies to remove the dirt and filth of the Town.

(To be continued.)



Situated probably in the most idyllic place at the Nilgiris the Hindustan Photo Films Manufacturing Company Limited, a Government of India enterprise manufactures Cine Positive and Cine Sound (Black and White), Bromide Paper, Medical X-ray Film, Roll Films and Cassettes. With an anticipated turnover of Rs. 15 crores a year the HPF's role in photographic and allied industry will be of growing importance. Manufactured in technical collaboration with primarily Messrs Bauchet of France the products undergo rigorous quality control.



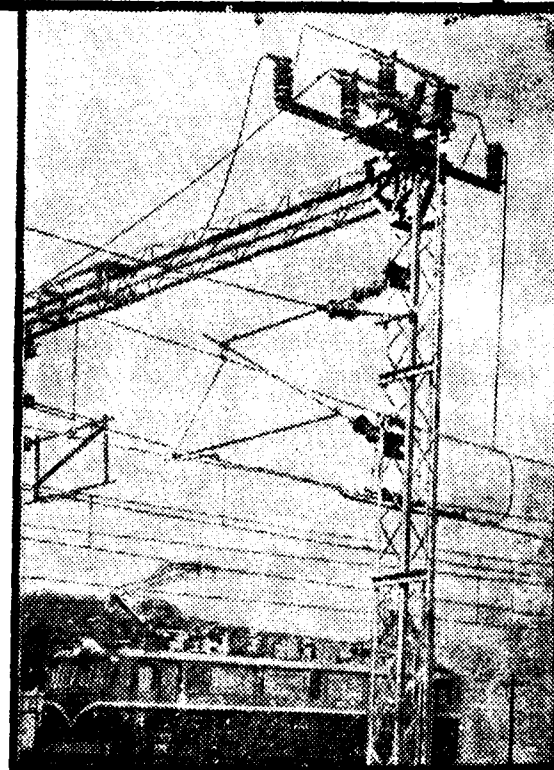
Hivelm are happy to announce their special 25 kV Single Pole and Double Pole Isolators for the Railways. Having successfully satisfied all rigid railway specifications and standards, these isolators are now being manufactured for the Railway Electrification Schemes like Kanpur-Tundla Electrification, etc. Several hundreds of isolators of entirely indigenous design will be shortly supplied to the Railway Electrification authorities.

The following are some of the salient features:

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- * Avoids flexible connections to give high short-circuit withstand level.
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Madras-41.



POWER FOR PROSPERITY

In about two or three years period all the villages and hamlets will have electricity.

Tamil Nadu stands foremost in the intensive development and use of electricity.

In the three-year period ending with March 1970 more Harijan colonies received electricity than ever before: Though this scheme is subsidised by the Harijan Welfare Fund, in the ten-year period 1957-67 only 2,367 Harijan colonies got the benefit of electricity, while in the subsequent 3 years as many as 2,028 Harijan colonies have been electrified. Another stupendous programme under execution is the provision of street lights in all villages in the State. This project which will cost Rs. 44 crores spread over three years, has brought street lights to 3,728 villages by the end of March 1970. The hectic pace of this programme is such that, before March 1971, street lights will be on, in another 11,000 villages and hamlets. The same rapid strides is witnessed in the matter of energising agricultural pumpsets, with a record number of 60,000 connections given in one year, ending March 1970. It will be interesting to note that 174,920 agricultural pumpsets were energised between March 1967 and March 1970, as against 247,951 pumpsets energised in

all the ten-year period preceding 1967. It has been estimated that over a million acres of dry and light yielding land have been converted to wet and high yielding lands with the aid of electricity.

Rural Electrification

In Tamil Nadu there are 15,078 Towns and census villages as per 1961 Census (339 Towns, 14,124 inhabited census villages and 615 uninhabited census villages) in addition to about 42,000 hamlets adjoining the villages and about 20,200 Harijan colonies.

Apart from electrifying all the 339 towns, the Board has

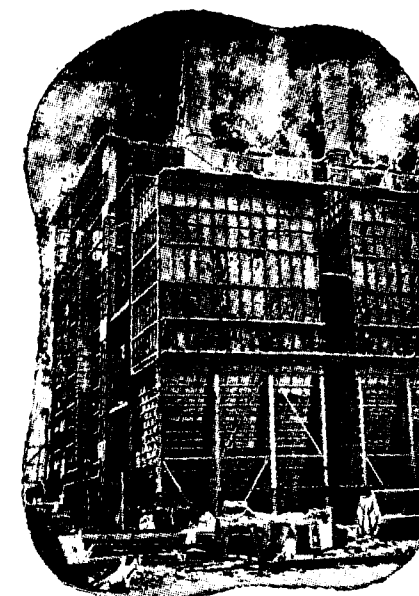
electrified 99 per cent of the villages with a population of over 5,000, 82 per cent of those with a population of 2,000-4,999 and 74.8 per cent of those with population of 1,000-1,999, and 65.5 per cent of hamlets having 500-999 and 43.3 of those with a population of less than 500.

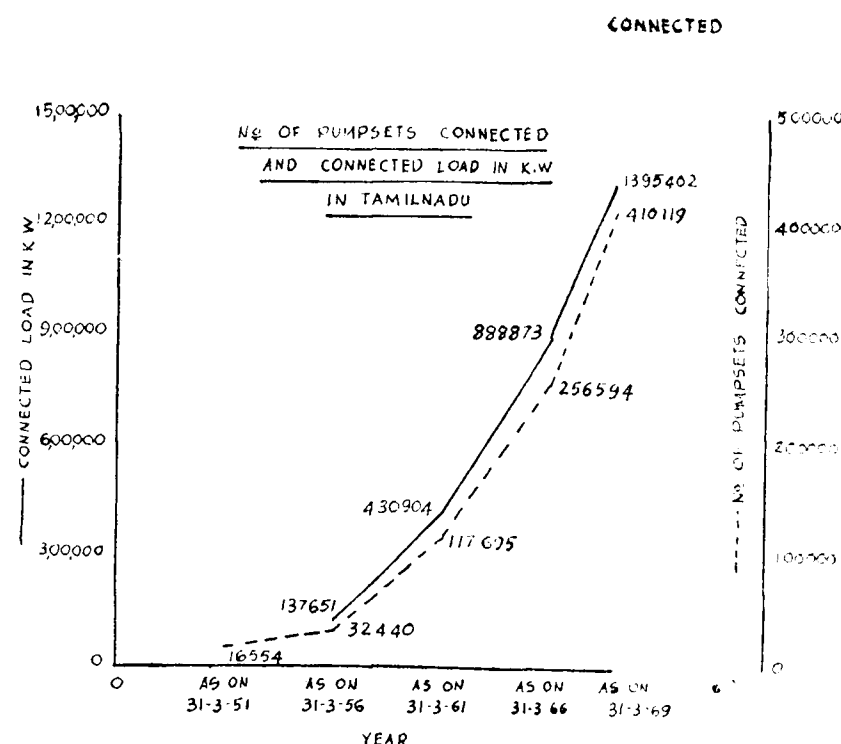
The Board is now engaged in an ambitious programme of electrifying all the remaining census villages and hamlets by 1972 viz. 3,998 census villages and 16,969 hamlets.

An ambitious programme

Tamil Nadu consists of a total land area of 32 million acres (13 million hectares), out of which the total cultivated area by irrigation is 6.2 million acres (2.6 million hectares). Lift irrigation accounts for 26.3 per cent of the irrigated area.

Out of a total of about 9 lakh wells in the State as per 1961 census, electric power has been extended to 4,70,903 wells using pumpsets (i.e. about 52 per cent) as on 31st March 1970. It can well be said that Tamil Nadu has been a pioneer in this field, having





accounted for more than 40 per cent of the total number of pumpsets connected up in the whole of India. The department is now in a position to give more than 60,000 connections per year as against a mere 3,600 in the 1st Plan period.

Filter points

To augment food production in Thanjavur district during the non-irrigation season and to help in raising a third crop in the district, a Crash Programme of sinking filter points and extending electricity to the pumpsets of such filter points was launched in the year 1966, and under this scheme, the supply has been extended to 2,758 filter points till the end of 31st March 1970. It is proposed to extend supply to about 7,500 filter points during the 4th Plan period.

Concessions for Agriculture

A number of concessions have been extended to agriculturists. They are :

(a) No service connection charges are levied in respect of supplies to agricultural pumpsets.

(b) Agricultural services are allowed 3 lights up to a maximum of 150 watts for farm use and the consumption is charged at agricultural tariff.

(c) Supply of power to the agricultural consumers is charged much below the cost at the distribution end.

(d) The tariff-rate of 9 paise per K.W. Hr. is the lowest as compared with the other classes of consumers.

(e) No surcharge is levied on the agricultural consumers.

(f) Waiver of tariff minimum is given when the consumers are prevented from taking or utilising energy either in whole or in part due to causes beyond their control.

(g) Waiver of tariff minimum charges is given during periods when wells are dry or when pumping is not possible on account of insufficiency of water.

(h) The payment of unconnected minimum charges and special guarantee charges have since been completely dispensed with; the tariff minimum alone will apply in respect of these supplies.

(i) Agricultural services are not disconnected if pumpsets are removed for want of water. If a party requests for change of motor from one bed to another and similar cases, no reconnection fee is levied.

(j) The agricultural consumers are charged for the actual connected load even if it is less than the load contracted.

(k) No power cut is enforced on agricultural consumers during the periods of power cut due to low water conditions in hydro reservoirs.

Harijan colonies

The Government of Tamil Nadu and the Tamil Nadu Electricity Board have been paying special attention to the electrification of Harijan Colonies. These are mostly situated away from the main villages and extension of electric supply to these colonies is generally unremunerative. In order to develop these colonies, the Government of Tamil Nadu have set up a Harijan Welfare Fund from which grants are given to the Electricity

Board for subsidising the unremunerative portion of extension of supply to Harijan colonies. Out of about 20,235 colonies in the State about 4,300 colonies have been electrified up to the end of 1970-71.

Fourth plan

1. *Pumpsets.*—The Tamil Nadu Electricity Board proposes to provide electric power to an additional 3,40,000 pumpsets during the 4th Plan period at an estimated cost of Rs. 62.5 crores. Out of this, supply to 59,105 pumpsets has been effected during 1969-70 (the 1st year of the 4th Plan) at an outlay of Rs. 13.7 crores.

2. *Provision of street lights.*—Out of the 31,727 villages and hamlets electrified up to the end of 31st March 1969, only 22,700 numbers were having street

lights, the rest having electricity for agricultural pumpsets alone and 25,345 villages were not having electricity either by way of pumpsets or street lights.

In June 1969, the Chief Minister of Tamil Nadu launched a Special Programme to extend street lights to all of the rest of the villages and hamlets in the State within a period of about 2 years. This special Programme is expected to cost about Rs. 44 crores. Under this programme, street lights have so far been extended to 3,728 villages and hamlets during 1969-70. It is expected that about 5,000 villages and about 6,000 hamlets will be covered under this programme during 1970-71. All the census villages and about 77 per cent of the hamlets will be completed by December 1971. The

entire programme is expected to be completed during 1972-73.

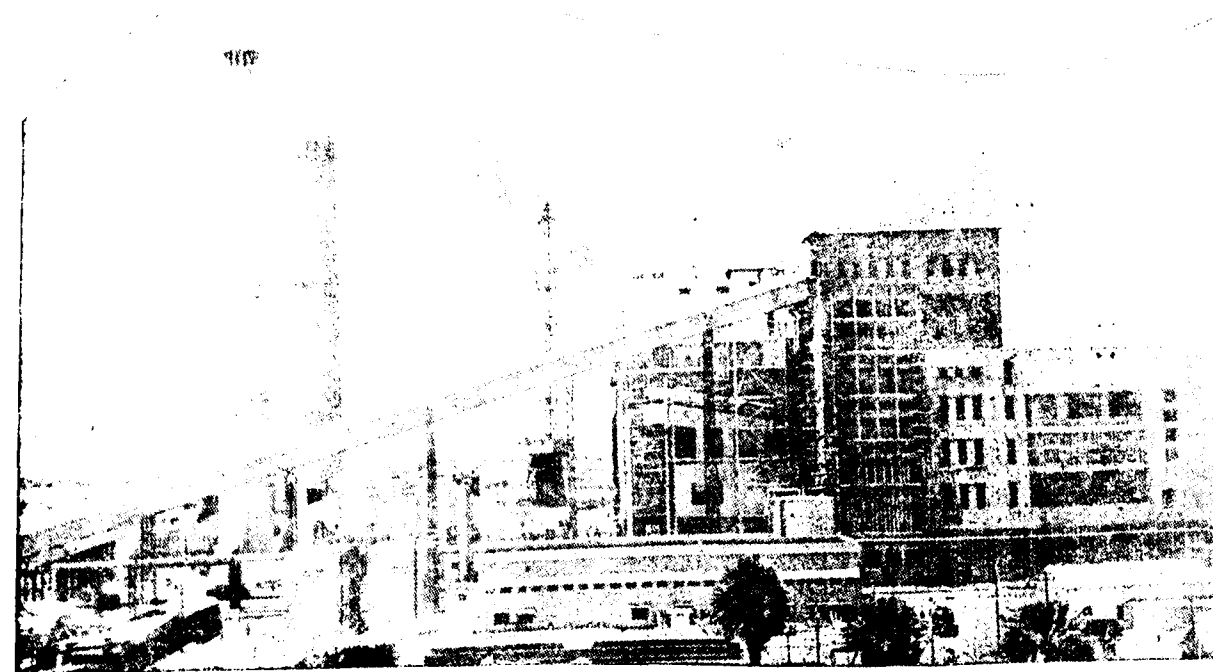
The annual outlay during the plan period is expected to be as under :—

	RUPEES IN CRORES.
Normal Programme	62.5
Special Programme	44.1
Grand total ...	106.6
Average per year ...	21.30

Resources

(a) *Normal Programme :* The proposed provision of normal programme for the 5 years of the IV Plan is Rs. 62.5 crores. This will be met by the plan resources such as loans from Government, Open market loans, loans from L.I.C., Internal resources of the Board, etc.

(b) *Special Programme :* The special programme launched



Serial number and State.	Total number of villages.	Villages electrified as on 31st March 1970.	
		Numbers.	Percentage.
(1)	(2)	(3)	(4)
1 Andhra Pradesh ..	27,084	7,962	26.2
2 Assam	25,072	473	1.8
3 Bihar	67,665	6,923	10.2
4 Gujarat	18,584	4,457	24.0
5 Haryana	6,669	3,367	50.5
6 Jammu and Kashmir ..	6,559	763	11.6
7 Kerala	1,573	1,159	73.9
8 Madhya Pradesh ..	70,414	4,851	6.9
9 Maharashtra	35,851	10,078	27.9
10 Mysore	26,337	6,518	24.7
11 Nagaland	814	49	6.0
12 Orissa	46,466	888	1.9
13 Punjab	11,947	5,509	46.1
14 Rajasthan	32,241	2,434	7.5
15 Tamil Nadu	14,124	10,116	71.8
16 Uttar Pradesh	1,12,624	14,352	12.8
17 West Bengal	38,454	2,679	6.9
18 Union Territories ..	23,730	4,583	19.3
Total (ALL INDIA) ..	5,66,878	86,254	15.0

Serial number and district.	Existing number of villages.	Electrified as on 31st March 1970.	Percentage electrified.
(1)	(2)	(3)	(4)
1 Chingleput ..	1,440	1,356	94.0
2 Coimbatore ..	897	816	91.0
3 Dharmapuri ..	655	373	56.9
4 Kanyakumari ..	46	46	100.0
5 Madras	Nil	Nil	Nil
6 Madurai	875	775	88.6
7 Nilgiris	37	30	81.0
8 North Arcot ..	1,681	1,536	91.2
9 Ramanathapuram	1,427	869	60.8
10 Salem	848	621	73.2
11 South Arcot ..	2,005	1,166	58.1
12 Thanjavur ..	1,899	954	50.2
13 Tiruchirappalli ..	1,405	820	58.5
14 Tirunelveli ..	909	754	83.0
Total ..	14,124	10,116	71.8

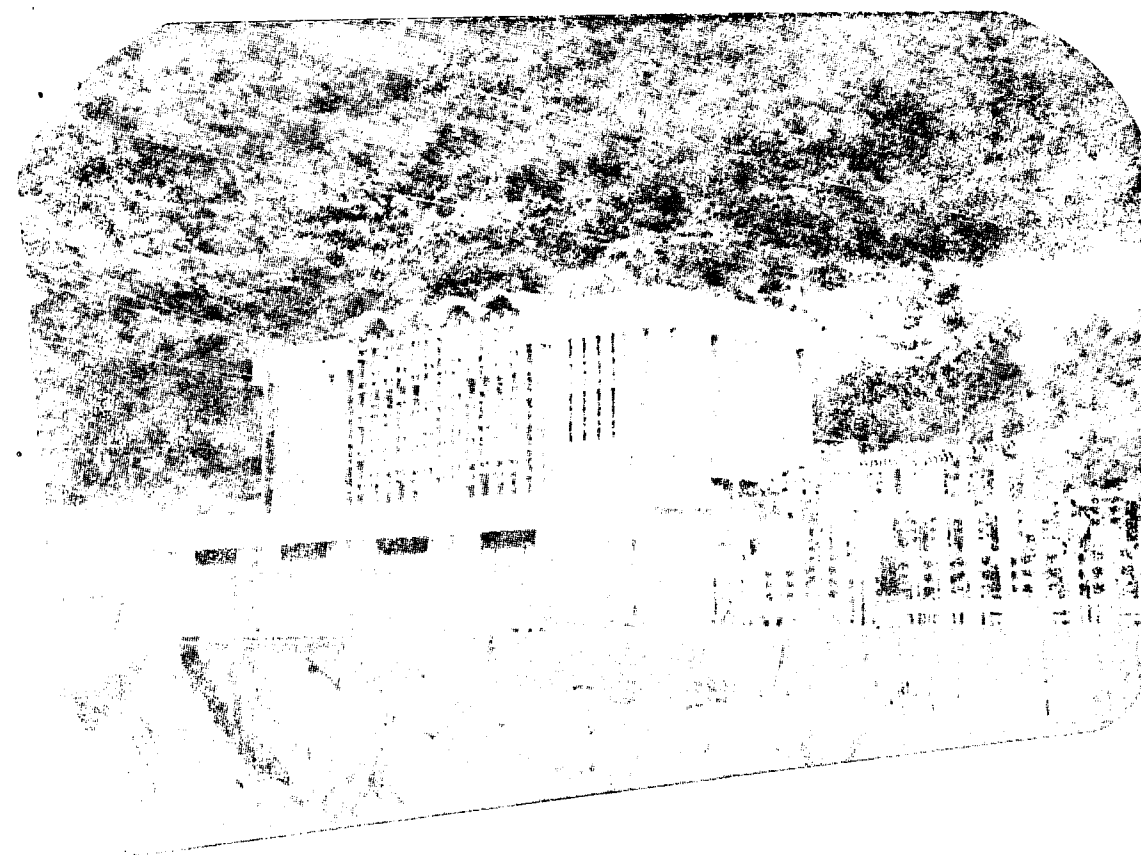
by the Tamil Nadu Government to electrify all the villages and hamlets in the IV Plan may cost about Rs. 44 crores and more. This will be financed by institutional loans and loans from Government if possible. This is in addition to the provision of Rs. 62.5 crores in the IV Plan for normal programme of Rural Electrification works.

Agriculture : Lift irrigation has brought a change on the cropping pattern in two ways. (i) There is a shift from dry crops and (ii) there is a shift from light yielding to heavy yielding crops. A sample survey conducted by the Planning Commission in four districts of this State has revealed that the total area under cultivation has increased by 36.5 per cent due to adoption of lift irrigation in the areas selected for the sample survey.

Lift irrigation helps the farmer to raise more than one crop. The sample survey of the Planning Commission has indicated the following average ratios of the gross area to the nett area cultivated (i.e., intensity index) before and after installation of electrical pump-sets :

INTENSITY INDEX		
Pre-pumpset.	Post-pumpset.	Percentage increase.
126.1	164.2	30.1

Rural industries : Power is being used for rice hulling, flour milling, oil pressing, sugarcane crushing, small workshops, talkies, cotton



ginning, tape-weaving, power-looms and other miscellaneous industries.

A scheme for intensive development of small Industries in rural areas was initiated by the Planning Commission on a pilot basis and the scheme is in progress in three areas of the State, viz., Nanguneri Taluk in Tirunelveli District, Omalur Taluk in Salem District and Sriperumbudur and Tiruvellur Taluks in Chingleput District.

Consumption

Under rural electrification, consumption is classified under five heads, namely (1) Domestic, (2) Commercial, (3) Street lighting, (4) Industrial and (5) Agricultural. Consumption under

the above categories during 1968-69 were as below :—

Domestic ...	75 million units.
Commercial ..	66 „
Street lighting ..	22 „
Industrial ...	1,177 „
Agricultural.	1,020 „
Total ...	2,360 „

Thus out of the total consumption of 3615.727 million units (in 1968-69) in the State under the above categories 2360.796 units were consumed in rural areas—representing 65 per cent of the total consumption.

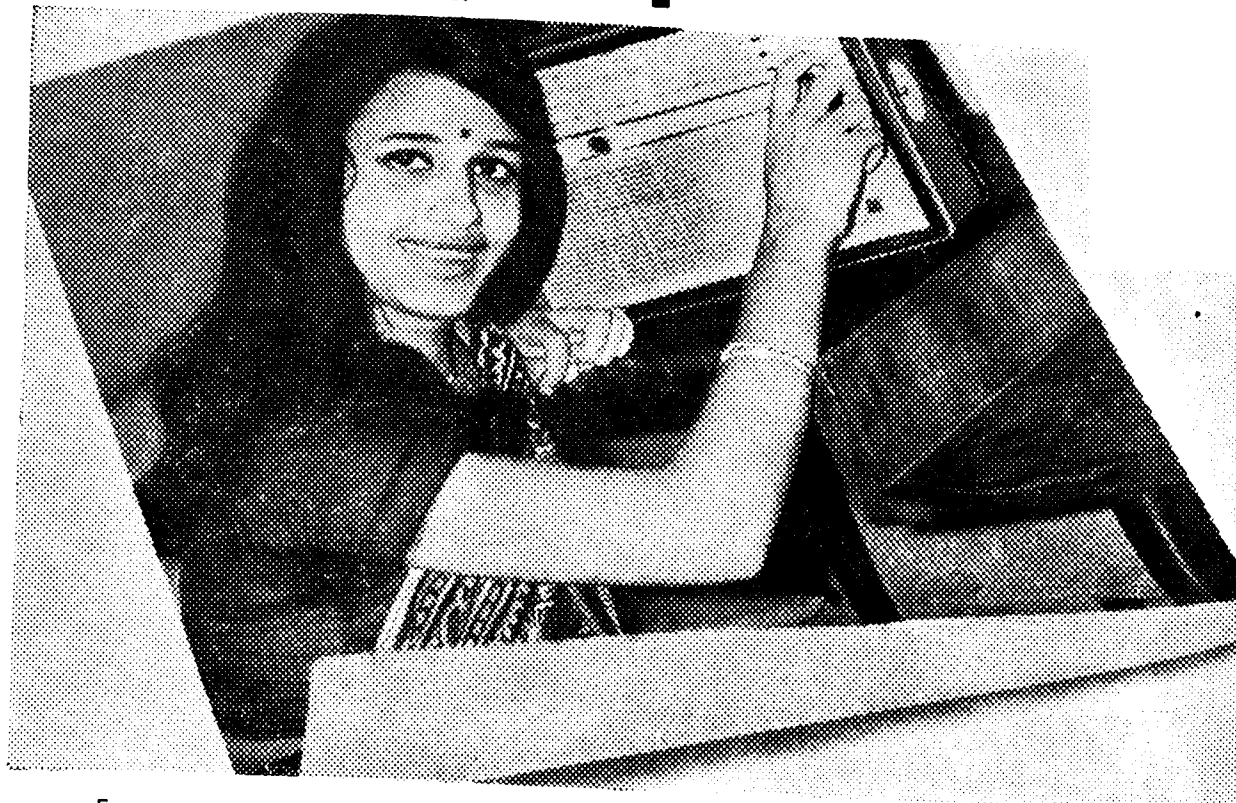
Economics of rural electrification

Rural electrification is in most cases not a paying service in

initial years. Consequently the Board has been constantly striving to cut down the capital cost of the rural extensions (i) by adoption of economic designs and (ii) by centralised purchase of line materials and needed equipments.

Line construction practice, sub-station designs and all associated works have been carefully studied and standardised. The average cost of electrification of a village by this Board (during 1969-70) works out to Rs. 42,000 as against Rs. 60,000 estimated by the Planning Commission. This has enabled the Board to achieve substantial progress despite rising price of the materials.

A Blueprint for prosperity !



Every rupee you spend in Tamil Nadu Raffles is an investment in your future prosperity...a home with all the comforts you often wish for — Your investment will also bring prosperity to the community because the money is re-invested by the

Government in projects that ensure plenty for all...food, housing, sanitation, education, hospitals. Remember, your chances of getting prosperous are really brighter as Tamil Nadu Raffle Scheme offers the largest number and amount of prizes throughout India !

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First Prize: Rs. ONE LAKH (in each series)

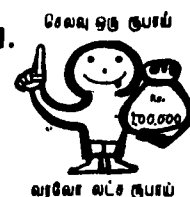
Date of Draw: 25-8-1970

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RAFFLE TICKETS**

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WATER LOGGING

Problems of some of the tracts of the Tirunelveli Coastal Lands.

(The first part of this article appeared in August 5, 1970 issue of Tamil Arasu under the title, 'Can the Sand Dunes of Tirunelveli be Tamed?' This is the Second and Concluding part of the article.)

Part II

In Tiruchendur, Sreevaikundam and Nanguneri taluks there are a few depressions which hold the surplus water from the tanks at the upstream side and runoff water from the surrounding areas. During the rainy season there is heavy inflow of runoff into these depressions, resulting in the submergence of large areas of cultivated lands. As these areas lie almost in level with the sea or even below sea level it is a problem to discharge this water into the sea. There are two large water-logged areas one at Puthantharuvai and the other at Tiruchendur.

Puthantharuvai Block

The total area subject to submergence is 1,512 acres which

includes 610 acres of cultivated lands and 902 acres of poramboke lands. The area is intensively cultivated with rice and plantains by putting up open wells and installing pumpsets. When the tanks in the upper reaches start surplussing, these lands with valuable crops of rice, plantains and equipments such as oil engine, electric motor and pumpsets will be damaged by flood.

It is understood that there is a scheme to divert the water in the depression into the Kurumeni river. This water can very well be utilised for irrigating the scorched sand dunes that lie around this area instead of spending large sums on diversion as water is a natural gift which should not be lost by diversion. The chemical analysis of the water has revealed that this water can be used for irrigating field crops. Pumps can be installed to lift the water to the highest point from where water can be conveyed through well planned irrigation

canals to feed at least 500 acres of the sand dunes now lying barren, besides saving the valuable crops of rice, plantains and equipments from submergence every year.

Tiruchendur Block

The water-logged area is a long narrow patch lying parallel to the Tiruchendur—Kulasekarapatnam road. The surplus water from the tanks above stagnates in this area every year and causes submergence of 1,306 acres consisting of 418 acres of patta lands and the rest poramboke. The coconut crop cultivated in this area suffers due to stagnation and it is estimated that the annual loss will be Rs. 4 lakhs. The water stagnating in this area is potable and can be used for irrigating the crops. But the soil is found to be saline and when the water stagnates for a few months it becomes saline. During the dry months the central portion of this area becomes a long narrow swamp.

It is possible to reclaim the entire area by leaching and application of organic matter and gypsum. The cost of reclamation per acre will be Rs. 400 and at this rate the total cost of reclamation is Rs. 5.22 lakhs. After reclamation rice and coconut can be raised in the fields for years to come.

Improvement of sandy soils

The soil from the cultivated lands is being removed and deposited over the adjoining lands to form sand dunes. The sand dunes contain soil particles varying from finer ones to coarser ones in an assorted manner. The infiltration capacity is excessive and the retentive power of water is comparatively low. Some enter-

prising cultivators have constructed a concrete layer of 3" thickness at 1' depth from ground level, filled up silt and clay for cultivation of rice crop. This is a costly practice and cannot be adopted by the average cultivator in spite of the possibility of getting sizable returns. The sandy soil can be reclaimed well by addition of clay, silt and organic matter in the course of about 3 years and there is no need to have the concrete layer at such a high cost. Further, not all the places need the concrete layer as the soil contains adequate quantity of silt in many parts.

The most redeeming feature is the availability of plentiful supply of good potable water within 80

feet from the ground level for a stretch of about 80 kilometres from Sayarpuram up to Thiruvambalapuram along the coast. Round about Kayalputnam and Arumuganeri the water is slightly brackish. The underground water can be tapped through wells to cultivate rice and plantains.

This area is particularly suitable for cultivating plantains. Already plantain is cultivated in many places in these parts. There is vast scope for cultivation of plantains for exporting to foreign countries, to earn valuable foreign exchange as the export of plantain from Maharashtra State has been found to be quite paying. Another advantage is the nearness of the Tuticorin port to these parts which will result in saving on transport to the point of export from the production centre.

Swift action to set up suitable organisation to enthuse the cultivators to take up cultivation after ensuring protection against wind erosion is necessary. They may be provided with necessary financial help to invest in capital expenditure such as putting up well, pumpset and farm house, etc.

Beyond Thiruvambalapuram in the south up to the border of Kanyakumari district, the underground water is slightly brackish. But, this water can be used for irrigation of coconut and ragi crops. The underground water can be tapped by putting open wells as there is good spring at a depth of 60 feet. The Government lands can be assigned to landless people who will be able to bring the lands under cultivation.

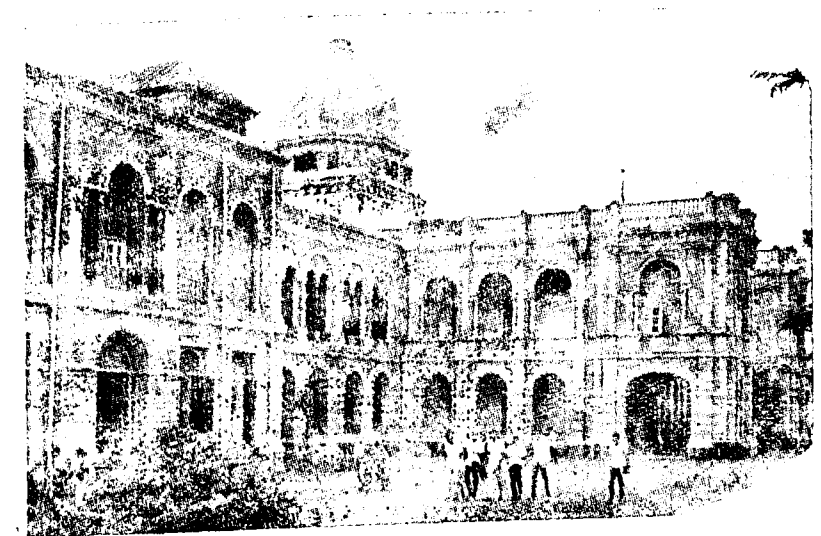
TICKET PLEASE !

An indigenously manufactured multiple self-printing ticket machine has been installed at Madras Central Station. By merely pressing a button, this machine can print and issue six tickets simultaneously. Normally, it used to take about 20 minutes to manually date and issue about hundred card tickets. This delay will be considerably cut down by the use of the new machine. The machine will be used at Madras Central Station for printing and issuing about 6,000 platform tickets every day. This will help the public in getting platform tickets easily during peak hours.

The new machine costing about Rs. 3,000 has been manufactured by the Southern Railway utilising redundant and obsolete components.

Apart from the speed in operation, the self-printing machine does away with all problems of ordering, checking, storing, issuing and accounting for tickets. All these time-consuming processes are accomplished at one stroke by the machine which prints, dates and numbers and records the tickets issued.

COLLEGIATE



Presidency

EDUCATION

"Learning is the true imperishable riches; all other things are not riches."—Thiruvalluvar.

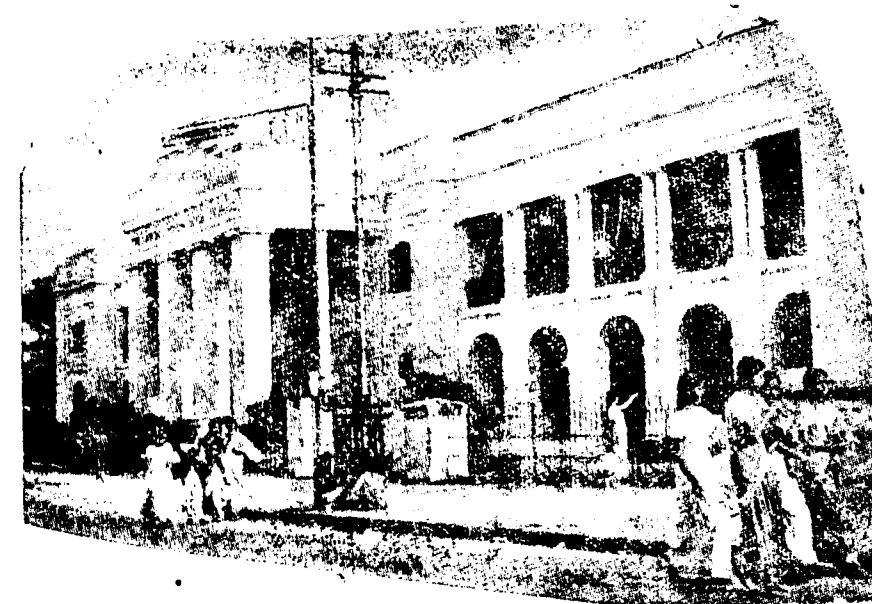
The State of Tamil Nadu is fully aware of the fact that in

a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of schools and

colleges will depend the success in the great enterprise of national re-construction with its principal objective of raising the standard of living.

In the words of Valluvar, "the beauty and goodness of one who is destitute of knowledge by the study of great and exquisite works, are like the beauty and goodness of a painted earthen doll." The development of human resources through a properly organised programme of education is most important. While the development of physical resources is the means to an end, that of human resources is an end in itself, without which development of physical resources is not possible.

The State of Tamil Nadu has fully realised the importance of education as a means of



Lady Wellington

development of human resources, which is reflected in the immense resources that have been utilised for the programme of education. That intellectual giant, Arignar Anna considered investment of money on education as an investment in human resources and allocated 20 per cent of the State's budget to education during the worst period of recession. In subsequent years under the leadership of Thiru M. Karunanidhi "the investment on education" has risen to 23 per cent of the State's budget. This wise policy has yielded good dividends and has led to the development of the State in all fields. The following is the expenditure on education since 1967, and provision for 1970-71.

1967-68—5,404 Lakhs
1968-69—5,811 Lakhs
1969-70—6,446 Lakhs
1970-71—6,773 Lakhs

As collegiate education has been made free up to the P.U.C. level, there is immense rush for P.U.C., and consequently for Degree Classes. To accommodate the anxious learners in the college, additional sections have been sanctioned by the Government and new colleges have

been opened. During the academic year 1964-65 the number of colleges was 78 in Tamil Nadu and in 69-70 the number rose to 140. The number of colleges for women increased from 22 in 1964-65 to 37 in 1969-70. The number of women students who received the benefit of college education in 1965 was 15,700 and in 1970 it has risen to 31,400.

There are 23 Training Colleges for teachers throughout Tamil Nadu and 2,600 graduates were trained during 1968-69. Schools are readily provided with sufficient number of trained teachers. In fact, to ward off unemployment among trained teachers, teacher strength has been increased in many schools in anticipation of need.

Evening Colleges

Though the foundation for education is laid at the school, it does not end there. Education is a life-long process. Many might not have been fortunate enough to pursue their education beyond school level. To help such youngsters, evening colleges

have been opened in many colleges, both for arts and science courses. The total number of colleges in which evening classes are conducted is now 12. These colleges are in Madras, Tiruchi, Coimbatore and Madurai. Separate evening colleges for women are being run.

Many an intelligent student is denied college education because of financial difficulties. Taking this into account the Tamil Nadu Government made collegiate education free up to the P.U.C. level in 1969. In addition, for further studies, free scholarships by State and Central Governments, as also loan scholarships are granted to students. In the current year, the number of scholarship holders under these schemes will be 7,500. The total value of these scholarships is Rs. 54 lakhs.

Stipends to M.A. (English) Students

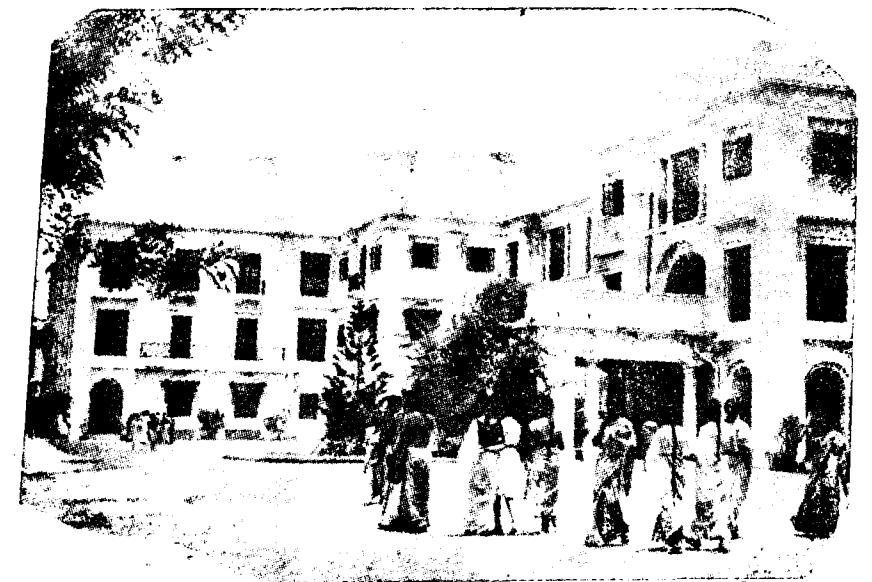
In view of the prevailing general dearth of fully qualified candidates for recruitment to the posts of Assistant Professor of English, a new scheme has been introduced under which stipends are offered to deserving students for undergoing the M.A. Degree course in English, so that these candidates can after obtaining the M.A. Degree, be considered for appointment as Assistant Professors in English or any other suitable post in the English Department in the Tamil Nadu Educational Subordinate Service, according to the class obtained by them in

the Post-graduate course. Under this scheme, each candidate selected for undergoing the M.A. degree course in English is paid a stipend of Rs. 100 per mensem for the period of his study (viz.

Tamil Studies in Other States.

The Government of Tamil Nadu is giving as grants to Universities in other States amounts ranging from Rs. 4,000 to Rs. 25,000 per annum for the establishment of Professorships in Tamil in those Universities and for encouraging the study of Tamil at the Collegiate level. Among the Universities which were sanctioned such grants during the past few years are, the Universities of Allahabad, Kerala, Calcutta, Osmania and Venkateswara.

Tamil speaking students domiciled in Mauritius, Fiji and Malaysia are selected and awarded scholarships for their post-matric study in colleges in this State. Two scholarships are awarded to students from each of these countries.



Queen Mary's

21 months) for meeting expenses in connection with the tuition fees, cost of books, etc. Such stipends are being paid to 40 students every year.

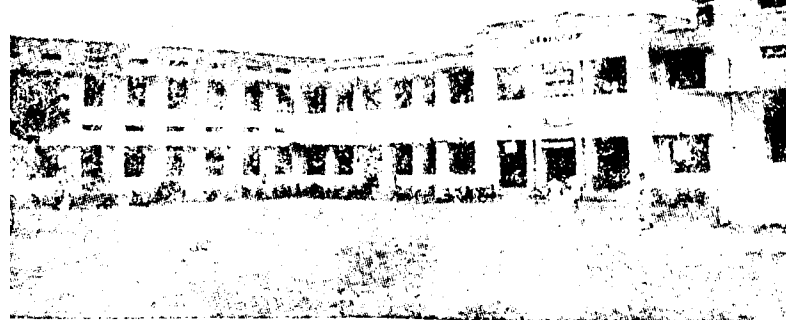
The Government of India are already awarding scholarship to physically handicapped students, viz. orthopaedically handicapped, the blind, and the deaf. About 25 students of this State under each category are benefited. As the conditions laid down by the Government of India are rather stiff all the handicapped students of this State are not benefited. Hence a scheme for the award of State scholarships to the above categories of the physically handicapped students of the age group of 16 to 30, studying in Post-Matriculation courses was introduced from 1969-70 and 112

Tamil Medium

Tamil has been made the medium of instruction in the Degree classes in both Arts and science subjects. About 1,900 students are taught science subjects in Tamil.

In order to implement speedily the Tamil medium scheme in colleges, a Committee has been appointed to prepare a glossary of scientific and technical terms in Tamil. After scrutiny by the University authorities 55 Science books have been published in Tamil for the science students.

Pachaiyappa's Kanchipuram



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**THE SILK
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Made from pure mulberry silk, in contrasting colours the Kanchipuram silk saree is a joy for ever.

The Kanchipuram silk sarees have acquired a reputation for lustre, durability, and finish matched by no other fabric, be it cotton or the synthetics. Made from pure mulberry silk, the Kanchipuram silk saree comes in such wide but unmatchable contrast in colours that it attracts attention.

Preparing every warp and weft strand of silk or cotton that goes into the making of a saree has to be individually handled by the weaver to bring out all that wealth of colour, texture and design seen in the Kanchipuram silk saree. Superb skill and enormous patience are blended to make it such a gorgeous splendour which no woman can resist.

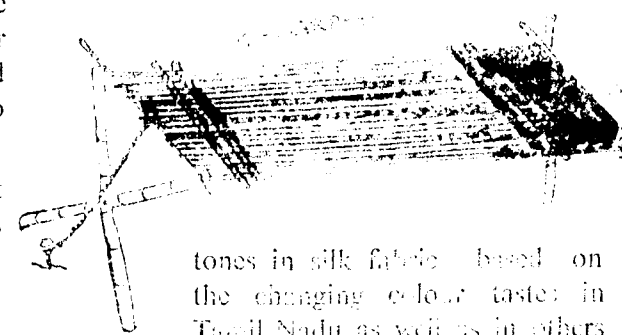
Source root of design

There are 20,300 silk-loom in Tamil Nadu and nearly 8,000 of

these looms are located in Kanchipuram and its immediate neighbourhood, accounting for an annual production of Rs. 50 lakhs worth of silk sarees and other silk piece goods. There are four varieties of silk, mulberry or pure silk, tasar, eri and muga. Mulberry silk is produced only in Mysore and 50 per cent of the produce or 4.5 lakhs kilogram silk is used in Tamil Nadu annually. The other component of the silk industry is lace. This is imported from Surat. The centuries old traditional skill of the silk loom weavers of Kanchipuram is the only stable factor which has earned such a reputation to our State.

Even so, by about the 1950 it was found that the industry was not keeping pace with modern

trends and styles were falling behind everywhere. To help the industry a Weavers' Service Centre was established. The location of the Weavers' Service Centre at Kanchipuram in 1950 virtually revived the industry from extinction. Almost all the saree designs seen in Kanchipuram today, including some of those marketed by well known silk dealers in the State are those worked out by this service Centre. In addition, the Weavers' Service Centre, Kanchipuram has introduced a new colour palette of both brilliant and muted colour



tones in silk fabric based on the changing colour taste in Tamil Nadu as well as in others

potential markets. The designs of the centre which are accompanied by carefully worked out colour schemes have found ready acceptance among the Kanchipuram weavers, as they conform to the yarn, the dyes and the weaving techniques employed by them. The resultant products have found good buyer acceptance as the design concepts follow the source-roots of our design consciousness.

Four qualities

Four important qualities distinguish the Kanchipuram silk saree from other silk fabrics.

First, the mundhi or petni and the borders are laboriously attached yarn by yarn to the body of the saree giving ample scope for using contrasting colours, not capable of use in the "tie and dye" method employed by others.

Second, the Kanchipuram weaver uses four filaments or strands of silk twisted by hand on

Tried technique, but latest colour and design concepts create sarees of beauty, elegance and sophistication

the dola as weft yarn. In some portions of the saree which "catch the eye" when draped, six filament weft is used. This gives both texture and durability.

Third, the lace is so skilfully woven into the main fabric that the feel of silk is not lost on the body.

Last, in the Kanchipuram saree, it is the yarn that is dyed and not the fabric, so much so, even after repeated washes for a number of years, the colours do not fade.

All these are qualities imparted by the weaver who cares more for the quality than the quantity of his output. Thus it is that the Kanchipuram saree becomes a saree for a life-time.

Silk production in Kanchipuram is in the hands of six silk

co-operatives and a large number of master-weavers. The concern for quality is seen even in the methods adopted for purchase of raw silk. Agents of producers visit Bangalore and Mysore to purchase raw silk only on sight and not on sample.

Generally finer varieties of silk yarn are sought after and preference is shown to raw silk from Sidlaghatta and Kollegal. The raw silk is gum-coated and dull in colour. The raw silk or kora, as it is called is given to part-time women workers for unwinding the raw silk on to a bamboo stand and carefully remove all flaws in the raw silk yarn. Two strands of raw silk yarn are twisted into a single filament by means of hand operated dola and resultant yarn is delivered back in the form of skeins ready for dyeing. A loss of 10 per cent in weight occurs in these processes by removal of dirt and flaws. Dyeing is done by the co-operatives or master-weavers in their own premises. During dyeing, the yarn also gets de-gummed and the true lustre of silk that we recognise, becomes apparent only after dyeing. This process again reduces the weight content of yarn by another 15 per cent.

The Kanchipuram saree with solid, contrast borders on both sides can only be woven on throw-shuttle looms—the shuttle which

contains the yarn for weft. Two shuttles contain the yarn for two border-wefts and another shuttles contains the yarn entering the body of the saree as weft. Actually the two borders are attached to the saree yarn by yarn. The design of the saree and borders are controlled by separation of the warp threads by means of a control system known as *Adai*.

Intricate workmanship

This operation utilising three shuttles covers 5½ yards in a 6-yards saree and the *MUNDHI* or *PALLU*, the wide border at the end of the saree, is produced conforming to the colour of the border. For this, another warp having the colour of the border is arranged over the existing warp and threads are drawn through the healds and the reed so that one thread of the old warp and one of this new warp are contained in each gap of the heald and four ends pass through each dent of the reed. The warp above is firmly held and woven closely for about 1" to 1½". After cutting out the warp ends the cloth is woven upto a length of 4" to 6". The threads of the earlier warp are cut out and the threads of the new warp retained and woven into Mundhi or Petni. This name is given to the process

of joining the Mundhi of a different colour to the body of the saree. This process is done in such a manner that the two pieces blend together in harmony of colour and texture. To the naked eye it does not betray that they are different pieces of cloth. Extra wages are paid for this workmanship. This is the glory of the Kanchipuram saree unlike any other saree produced in the South.

The designs supplied by the Weaver's Service Centre or the designers of the Co-operative Society are transferred to a graph paper. From the graph paper the design is transferred to the *Adai*, a harness of lamp-wick which is the job of traditional artists. These wicks control the warp thread on the loom as each weft enters it and the design becomes the pattern both on border and body of the saree. To prepare a loom for a new



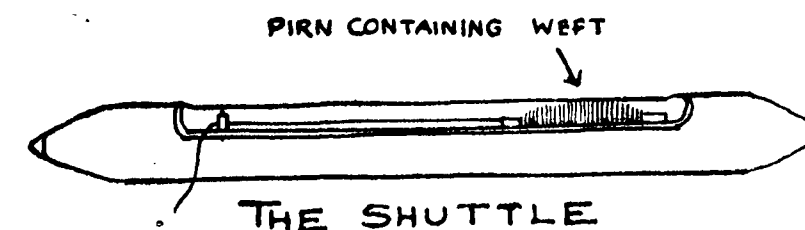
design it takes nearly ten days for the weaver.

The secret of lustre

The intricate and deft workmanship that go into the production of each Kanchipuram saree is such that it defies even the limited automation availed in the cotton handloom. Throughout it is a labour and skill intensive process. The texture is imparted by the weaver by painstaking care and the lustre of Kanchipuram silk which is not seen in the same



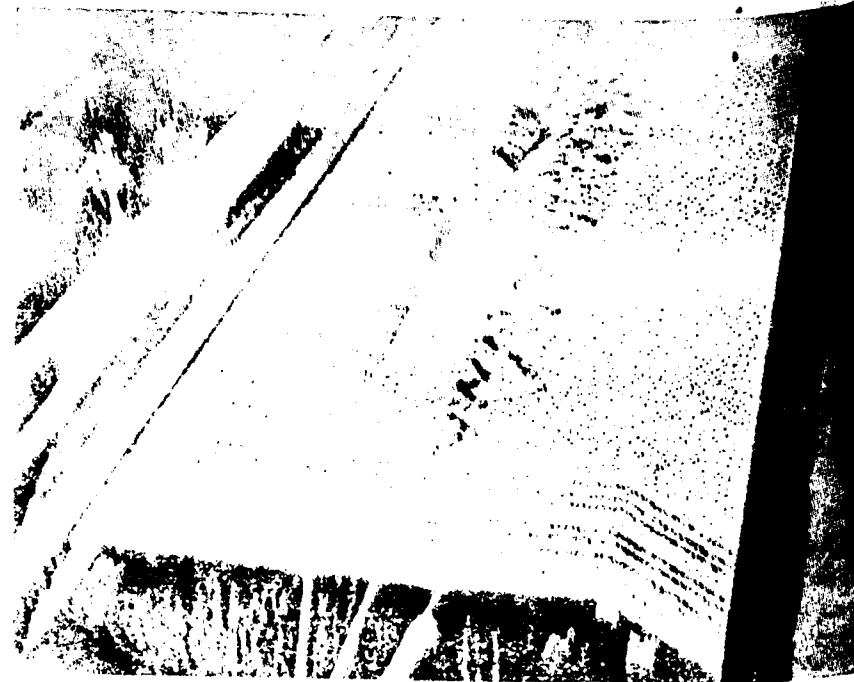
Anna in a Kanchipuram Silk | show-room.



degree to which silk is exposed to the sun and the water in Kanachipuram is the process of making the hand-dyed.

At the same time, silk is also a capital-intensive industry as it takes about 10-15 days to produce a single saree. In Kanachipuram, about 25-30 sarees are made from the cocoon of a single silkworm.

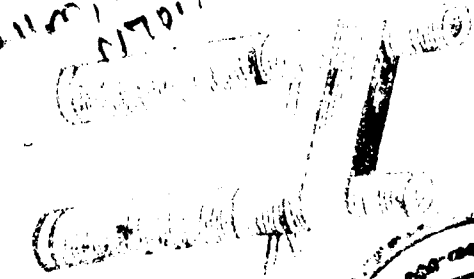
The Kanachipuram silk saree has been famous for its quality. Only the silk saree is known for its quality and the steep price of the sarees compared to silk sarees elsewhere. In recent years, the Kanachipuram silk saree has gained for itself a market in the cities in North India chiefly because of design acceptance.



Joining mundu (petai) to the body of the saree. This is the distinctive feature in Kanachipuram silk saree.

costs Rs. 350. The ruling price of raw silk being 25 paise per gramme and the price of end product selling at about 50 paise per gramme, very little margin is left for wastage, return on capital, over-head costs, etc., to adequately pay the weaver. Even in the case of heavily laced tissue saree priced at Rs. 1,000 and above, the margin between cost and price is not much.

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markets show a preference for this material for making garments and stoles for ladies. In spite of all this popularity, the price structure is such that the weaver has not much to gain. Including lace and silk, a 5½ metre saree weighing 450 grammes costs Rs. 250 while a made-to-order saree of 8½ metres weighing 700 grammes

New designs find buyer acceptance.



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தவணைத்தாள்.

செ. என் :

ப. எண் :

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