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CONTENTS

Trading Units Used in France	3
Guy Knoche	
Metric System in Steel Industry	7
S. C. Mukherjee	
Weighment of Sugarcane in Metric System	11
G. R. Athavale & S. L. Phansalkar	
News & Views	15
Book Review	19
Licensed Manufacturers, Dealers and Repairers of Weights and Measures (10)	22

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metric measures

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Trading Units Used in France

GUY KNOCHE

French Economic & Technical Bulletin,
France

(In the following account, M. Knoche has given a very general survey of the metric units normally used for packaging in wholesale and retail trade in France. An account of the units recommended for use in India has been given in the March 1960 issue of 'Metric Measures', on pp. 22-24—Editor).

Fuels.

Paraffin (Lamp Oil)

Packed in 100 litre drums for delivery to retailers, but is sold to consumers per litre.

Diesel Oil

Diesel oil is normally delivered to pumping stations by road-tankers (capacity 5,000 to 10,000 litres). It is sold to the public by 5 litre units. Price charged per litre.

Electricity

The production and consumption unit is the kilowatt-hour (Kwh). Bills are made out in francs per Kwh.

Coal

Coal is delivered in tonnes, by wagons, barges or trucks; coal is sold by retailers either by the tonne or packed in bags of 50 kg or 5 kg. Price is charged per tonne or per bag (for the 5 kg bags).

Chemicals

Caustic Soda

This product being dangerous to handle is often packed directly by the manufacturer

in 1 kg cans for direct retail sale. Prices are charged according to the number of cans delivered.

Sulphuric Acid

It is delivered in special 20 litre carbuoys and retailed per litre.

Chloride of Lime and Bleaching Fluid (Eau de Javel)

Chloride of lime, for which the wholesale unit is the tonne, is hardly ever sold in the retail trade, while bleaching fluid (known as Eau de Javel) on the contrary, is traditionally sold in litre or double-litre i.e. 2 litre bottles. For the past few years, manufacturers have been supplying concentrated bleaching fluid (liquid form) in hermetically sealed plastic containers each containing the necessary quantity for one litre.

Paint

Paint is packed at the factory in 5 or 2 kg cans, or in 1 kg tins. Certain paints (enamel, varnish, etc.) are even packed in smaller tins, the size of which is indicated by volume (1/20 for 1/20th litre) or by numbers.

Laundry Soap (Savon de Marseille)

Wholesale trade is carried out in cartons of 12 cakes, each weighing 400 g. Retail sale is per cake or sometimes in cartons containing 2 cakes packed directly by the manufacturers.

Toilet Soap

Wholesalers sell it by the dozen. It is resold to consumers by the unit or in the case of certain brands, pre-packed by the manufacturer in boxes of two, three or six cakes.

Ammonium Sulphate

It is sold in 50 kg bags, packed directly at the factory.

Glycerine

Sold in 20 litre carbuoys. Packed by the retailer in pharmaceutical bottles of 10 or 20 cubic centimetres.

Matches

These are packed directly by the Service d'Exploitation Industrielle des Tabacs et Allumettes (SEITA) in flat booklets containing about twenty matches each or in boxes containing from 50 to 500 according to size. They are delivered to retailers in packets containing 10 boxes (whatever the size) or in packings containing 100 booklets. Sold by retailers per booklet or box.

Paper

The price for paper in sheets, of whatever size, is charged per ream of 500 sheets. For paper in rolls, the price is charged per kg, the average weight of a roll being 200 to 300 kg. Writing paper is also sold in reams of 500 sheets.

Cement

Cement is sold by the 50 kg bag packed at the factory. Some manufacturers sell bags of 20 or even 10 kg.

Infants' Milk Foods

It is packed by the manufacturer, and is sold in tins of 300 g or 1 kg.

Buttons

Buttons are sold to retailers on cards of one dozen. Retailed in the same form, the haberdasher generally purchasing a dozen cards at a time (i.e. 12 dozen buttons=144=

one gross). Certain particularly expensive buttons are sold per piece.

Liquid Pharmaceutical Preparations

These are packed at the manufacturing laboratory. Retailers sell them in bottles of 10, 15, 20, 25 cm³ or in larger bottles of 250 to 300 cm³. The latter is particularly the case for syrups.

Ordinary Inks

These are packed by the manufacturer and are sold in litres or bottles containing 1/10 or 1/20 litre i.e. 100 or 50 ml.

Glass and Ceramics**Pottery, Coffee Sets**

These are sold per set (a set generally comprises 12 saucers, 12 cups, one kettle, one sugar pot and one milk jug). It is called the '27 piece' set.

Tiles

Tiles are sold per 100 as a rule directly by the manufacturer to the builder-user.

Window Glass

Wholesale and retail price is charged per square metre. Special unit prices are quoted for sizes exceeding current dimensions (for instance, for shop windows).

Drinking Glasses

Normally sold per dozen. Some retailers sell per piece in the case of standard models. Eight-glass sets (for cocktails or port wine).

Plantation Productions**Tea**

Packed by wholesalers in packets of 50 or 100 grams. Sold per packet by retailer who purchase from wholesalers per kg. (Cartons of 10 for the 100 g packets and of 20 for the 50 g packets).

Coffee

Coffee is purchased in bags of 100 kg (quintal) by the wholesaler who, after roasting the coffee, packs it in 250 g packets or else

delivers it to the retailer in 25 kg bags. In the latter case, the retailer himself packs it in 250 g packets or exceptionally, in 500 g or 1 kg packets. Price is charged per kg.

Rubber

Retail sale of rubber is carried out only in the form of manufactured products. Wholesale price is charged per kg.

Tobacco

Tobacco is purchased per kg from the producer. It is processed and packed by SEITA. It is sold to the public in packets of 20 (sometime 10) cigarettes, or 40 g of tobacco (certain brands of tobacco are sold in packets of 33 grams). The price is charged per packet and varies according to quality.

Building Timber

Wholesale price is per tonne, retail price according to amount of preparation undergone by undressed timber.

Joinery Timber

Price is charged per tonne or per square metre according to species of timber.

Walnuts

Walnuts are purchased wholesale in 50 kg bags. They are sold to consumers in 1 kg bags or in bulk. Price is quoted on per kg basis.

Cotton, Silk, Jute**Cotton Fibre**

Cotton is sold to the spinning-mills in bales of 378 pounds (imported from countries where the Anglo-Saxon system of units is in use).

Cotton Yarn

Cotton yarn is delivered to weavers in packages for which the price varies according to the yarn count. The (French) count is equal to the number of thousands of metres per 500 grams.

Fabrics (Textiles)

The sale units for wholesale trade is per 50 metre pieces (width variable according to materials: 120 cm for cotton fabrics, 140 or 90 cm for woollen fabrics, etc.). Retail sale is per metre.

Cotton Seed

The wholesale purchase is usually done in bags, and the price charged is per kg. No retail sale is usually necessary.

Jute

The price is per bale of 182 kg. No retail.

Jute Products

Whether for fabrics or carpets, the price varies according to packing. For jute yarns, the price is fixed in terms of length expressed in leas of 274 metres (300 yards).

Raw Silk

The wholesale price is fixed per kg. Retail price (sewing silk) per 5 g skein.

Hides and Skins**Raw Skins**

The price is fixed according to size. There is usually no retail sale. If exceptionally there is one, the price is charged per skin.

Hides

These are sold by weight (in kg).

Minerals and Metals**Iron Ore**

Iron ore is sold wholesale to the iron and steel industry per tonne. There is no retail sale.

Mica

Wholesale trade is by weight according to quality. Retail sale is in standardized sheets and is chargeable per unit.

Manganese Ore

The wholesale rate is per tonne. There is no retail sale.

Iron and Steel

These are sold per tonne. Retail sale is

of finished products only, and, in general, by length (per metre).

Agricultural Products

Wheat

Wheat is purchased from the producer per quintal and is retailed per kg. Flour is also delivered to bakers in bags of 100 kg.

Maize

The trade practice is the same as for wheat.

Dried Vegetables and Pulses

These commodities are sold in the wholesale trade in bulk or in 100 kg bags. Retail sale is in 50 g packages. Canneries also sell them ready cooked in cans described as 4/4, 1/2, or 1/4 according to size.*

Pepper

Pepper is purchased by retailers per kg in

the form of packages generally weighing 25 or 50 g which are sold per unit to consumers.

Milk

Milk is sold by the producer in 20 litre cans. Retailers sell it either in bulk (using special 1 litre, 1/2 or 1/4 litre bottles) or else packed in strictly hermetically sealed and water-proofed cartons containing 1/2 litre. Price is charged per litre.

Bullion

Gold

The wholesale price is quoted per kg (sold in ingots); retail price (in the jewellery trade) is per gram.

Silver

The practice is the same as for gold.

*Note: We have received information that wheat and maize are packed in jute bags to contain 100 Kg of total material. The dimensions of the bag are 130×70 cm (51½"×27½").

Although there is no specified standard for packing of dried vegetables and pulses, normally deliveries are made in jute bags, the total weight being 100 kg and the weight of the bag 1 kg. The dimensions of the bag are 120×72 cm (47½"×28½").

For flour, jute bags are used and contain a total weight of 100 kg. They are designated as DC 525.

The standard quality of the bags, for example, sold by the well known French manufacturer, Ets. Saint-Freres is CS 425 i.e. 425 grams of linen per square metre.

Metric System in Steel Industry

S. C. MUKHERJEE

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Calcutta

It is now some four years since the Standards of Weights and Measures Act, 1956, was entered in the Statute Book. In June 1958, it was notified that the Act shall come into force in respect of iron and steel factories from 1st October 1958. The lawmakers, however, knew full well that the revolutionary changes envisaged under the Act could not be brought about in four months. Simultaneously, therefore, a notification was issued permitting the continuance of the use of the old standards up to 30 September 1960. The long period of two years allowed for a gradual switch-over to the new standards is now over. It is but natural, therefore, that one should like to know how the steel industry has prepared itself for the new system. The answer, in short, is that considerable progress has been achieved in certain fields but quite a lot of ground yet remains to be covered.

At the outset, however, it is necessary to explain briefly the problem involved. It is broadly two-fold—first, the use of metric standard weights and measures in purchase of raw materials and sale of finished products; secondly, to produce iron and steel in metric or millimetre sections.

Purchase and Sale of Materials

The first problem is quite simple. It involves mainly re-calibration of the weighing

machines and some mechanical adjustments of the various sections of the steel mills. Even if such changes were to take some time, as it would, being to some extent dependent on the corresponding change-over in other branches of the engineering industries, the problem could be tackled by mere arithmetical conversion. Such conversion, no doubt, involves a lot of labour and time but the difficulties are not insuperable. Soon after the Government decision to apply the metric system to the steel industry was announced, the Steel Control communicated the decision to the steel mills. They were requested 'to confirm that action is being taken to implement the transition to the metric system as early as possible within the permitted period'. In November 1958, the Price Circular of steel materials was re-issued in the Gazette of India giving the price in decimal coinage and in metric tonnes. All the steel mills showed keenness to adopt the new system as early as possible, but actual progress was rather slow. In February 1959, the three major producers—Tatas, Indian Iron and Mysore Iron & Steel Works—were asked to intimate the progress. It was seen that none of them were procuring raw materials in metric standards; only Mysore Works reported that they were issuing tenders and bills in metric system by converting F.P.S. units. One

practical difficulty was the delay in introduction of the system by the Railways. With the Railways finally changing over to the metric system from 1 April 1960, this hurdle was removed. It can be confidently stated that from 1 October 1960, the steel industry has adopted the metric system of weights and measures in sale and purchase of materials.

Production of Steel Sections

The second problem, i.e., producing steel only in metric sections, is a little more complicated. Here again the steel industry's efforts have been praiseworthy. The Indian Standards Institution has already prescribed the new metric sections for most of the categories of steel and the steel works have accepted them. They are in fact keen on switching over to the new sections as early as possible. The three new steel plants in the public sector will produce steel in metric sections from the very beginning. They are already rolling out steel billets in metric sections which are being sold without any difficulty. Similarly the private sector steel plants have formulated plans for gradual change-over to metric sections. Both Tatas and Indian Iron are already producing several sections of steel in metric standards. In December 1958, Tatas commissioned a completely new mill with a capacity of 20,000 tons a month, which is producing metric sections of structurals and rounds. Indian Iron and Steel Company also have already successfully rolled some rounds and structural sections according to metric standards.

Mere readiness of the producers to switch over to metric standards is, however, not enough. The consumers have also to be ready to utilize them. Thanks to sizeable imports of steel in metric sizes during the last 5 or 6 years, these are no longer unfamiliar to the consumers in India. Pressed by heavy demands of steel for the execution of the Second Five-year

Plan Projects, steel had to be imported from all available sources. Sizeable quantities came from the Continent and the Soviet Union. The entire supplies from Russia and a good bit of the Continental steel were offered in metric sizes. Out of sheer necessity, Government of India accepted the materials. There was some initial consumer resistance but through education and propaganda, reinforced by pressing and urgent necessity, the materials were gradually accepted. In the process, our engineers became familiar with these sections.

The part played by the Indian Standards Institution in this connection, deserves mention. The Institution adopted the metric system for Indian Standard specifications for steel from the very beginning. In the process of finalizing these standards, the Institution had to consult producers, technicians and consumers of steel and this in turn helped a great deal in giving wide publicity to the metric sections of steel, their properties and uses. Tatas and Indian Iron and Steel Company have also published useful brochures about metric sections to be rolled by them and several circulars on the subject have been issued by the Steel Control urging consumers to switch over to metric sections of steel.

Consumers of Steel

All this publicity and propaganda have been quite effective in bringing about public consciousness. Metric sections already being produced in the country and imported from abroad are being utilized by essential consumers. Unfortunately the biggest consumer of steel in India, the Railways, are not yet ready to accept metric sections for all their requirements. They are, of course, now accepting quite a substantial quantity but it would take

them a little more time to switch over completely to the new system.

This problem was discussed at a meeting convened by the Tata Iron and Steel Company in July 1960. The meeting was attended by the representatives of the producers, big engineering concerns and Government Departments. The representatives of the Railways and the Directorate General of Supplies and Disposals strongly objected to the complete switch-over to the metric system of steel sections from October 1960. They explained that a change-over to the metric system needed complete re-designing of the Railway bridges, structures, etc., and in spite of the fact that the Central Government had allowed two years for transition to the new system, they were not yet in a position to accept metric sections for all their requirements. From the producers' angle also complete switch-over to the metric system at this stage would entail some financial loss. All the producers have got 'rolls' for the British sections which could not be conveniently adjusted for producing metric sections. Such 'rolls' will have to be scrapped in spite of the fact that many of them are yet capable of turning out large quantities of British sections.

Both in the interest of consumers and producers, therefore, the production of steel in British sections will have to continue for some time after 1 October 1960.

Legal Position

A question was raised whether this would be permissible under the law or whether the law would be required to be amended. It is understood that there is no objection to the production of steel according to the existing British Standards and the requirements of law would be met if such sections were described in terms of metric units, i.e. millimetres

instead of inches and kilograms per metre in place of pounds per foot.

The problem of expressing British standard sections in terms of metric units of weights and measures is not, however, very simple. There is likely to be confusion if each producer starts expressing British standard sections produced by them by using the standard conversion table published by the Indian Standards Institution. The same section produced by two producers may be expressed in different metric units if the degree of accuracy adopted by them varies. The problem might be solved by the Steel Control by issuing a circular giving a standard conversion for each British measure normally in use by the steel industry. Even then the difficulty of the consumers who have to use these steel sections may not be solved.

For an engineer constructing a bridge, a joist of the size $24'' \times 7\frac{1}{2}''$ has a meaning which is quite different from its mere physical dimensions. He knows its strength, its elongation and many other physical properties which are essential to enable him to determine its usefulness for a particular structure. If instead of a $24'' \times 7\frac{1}{2}''$ joist, he comes across a 610 mm $\times$ 190 mm joist, he would not be quite sure whether this is the exact British standard section which he has so long been using in the structures erected by him. A joist of 610 mm $\times$ 190 mm., although it might arithmetically correspond to a $24'' \times 7\frac{1}{2}''$ joist, may have quite different properties. The difficulty of using British standard sections expressed in metric units would, therefore, remain unless the engineer is definitely told that this particular section is actually the old British standard section with which he was familiar.

It has been suggested that producers should be permitted to indicate British units in their invoices and other documents so long as they have to continue to produce the old British

standard sections. It is understood that this would not be objectionable in law.*

Change in Railway Designs

The question may be asked as to how long the steel industry should continue to produce materials according to British standards. The question can be answered only by the Railways who are the biggest consumers of steel. Once the Railways agree to change their designs to suit the metric sections others will follow suit. A suggestion was made to

the Railways that they should be able to complete alterations in their designs within a period of a year. At one time it was understood that this was possible. Recently, however, the Railway Board have communicated to the Ministry of Commerce and Industry their inability to do so. In the recent discussions with representatives of Tatas and Indian Iron as well as Steel Control it was decided that after Railways had indicated the extent of their future requirements of British standard sections, a joint meeting would be convened to decide how long the Indian steel industry should continue to produce F.P.S. sections. There is no doubt, however, that the Railway Board also is very keen on switching over to the metric sections as early as possible. It is hoped that the period of transition would not be very long.

**(This conclusion is in line with Indian Standard : 787-1956 Inter-Conversion of Valves from One System of Units to Another. In this Standard it has been pointed out that any dimensions used for designating an article could be regarded as its name and should not be converted until new standards for the same article have been laid down and a new designation assigned to it.—Editor)*

Weighment of Sugarcane in Metric System

G. R. ATHAVALE & S. L. PHANSALKAR

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Kanpur

THE Government of India have issued a Notification stating that from 1 November 1959, the provisions of the Standards of Weights and Measures Act, 1956, relating to the units of mass shall come into force in respect of sugar factories insofar as they undertake the purchase of sugarcane or the sale of sugar. (S.O. 414-415 dated 31 January 1959).

is still smart and shrewd enough to know that his cart when filled upto a certain height with cane fetches him a certain amount of money and he will quickly get used to the new system of weights and measures, if he finds that under this system he still gets the same amount as he was getting under the old system. His suspicion would be removed and, in a short time, he would become conversant with terms like kilos and quintals, as he is now with seers and maunds.

Cultivators' Difficulties

As a result of this Notification, the factories will have to maintain the weights of cane purchased and sugar sales in the metric system. Since the purchase of cane is made from individual cultivators, a very large majority of whom is illiterate, the new system of weights and measures is bound to be looked upon with suspicion by them and considerable time and energy will have to be tactfully used, until the cultivators become conversant with the system. The sugar industry is one wherein the purchase of raw materials (sugarcane) has to be made from a large number of people, but the sale of the finished product is made to a small number of wholesale dealers. There is, however, one redeeming feature, and that is that the cultivator, even though illiterate,

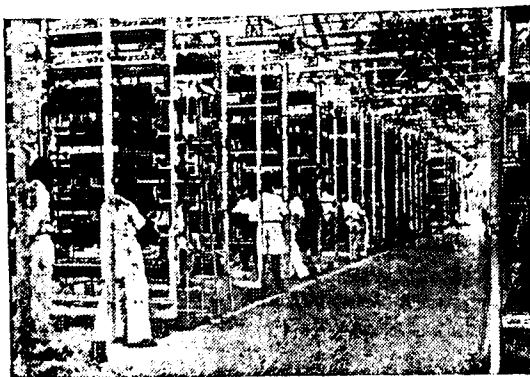
Perhaps, for at least a year or two it may be necessary to write the weighment slips in both the systems i.e. in kilograms and in maunds and seers, so that the cultivator knows the relations between the two and becomes familiar with the metric system by the time of its full adoption for all commodities.

We can assume, therefore, that so far as the cultivators are concerned, the problem will not be very serious.

Simple Tables Necessary

Most factories have several 3-ton capacity weighbridges for weighing bullock carts, a few 12-ton weighbridges for trucks and lorries and at least one weighbridge for

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wagons. All these weighbridges are calibrated to give the weight in maunds and seers, as in most of the factories in North India the weighment is done in these units. In some factories in South India they use pounds, hundredweights and tons as standard units, and so the weighbridges are calibrated in these units. If, therefore, weighment of the cane is to be made in metric units, all these weighbridges have to be converted into metric scales. To do this all over the country before 1 November 1959 was next to impossible. The only alternative, therefore, was that the factories should be permitted to weigh on their existing weighbridges and record the weights in their normal calibrated units and these units could be converted into the metric units by means of conversion tables. This arrangement has been permitted by the Government of India to continue for some time. But later on the factories will have to convert all the weighbridges to give the weights in metric system directly.

Conversion tables have been already published by the Indian Standards Institution. Conversion table 83 of IS: 786—1956 (Indian Standard Conversion Factors and Conversion Table) covers the range from one seer to a thousand seers and is correct upto three places of decimals. Table 16 of IS: 1020—1957 (Indian Standard Conversion Tables for Ordinary Use) gives conversion of maunds to quintals and covers the range from 1 maund and 1,000 maunds and reads up to the second place of decimals.

In cane weighment the accuracy legally required in Uttar Pradesh is upto 5 seers. Calculations to the second or third places of decimals are not, therefore, necessary for purchase of cane.

When the weighment is made in maunds, the use of these tables can only be made

after the maunds have been converted into seers and the seers in the weighment of cane have been added to these. Thus a weight of 15 maunds 13 seers will first have to be converted to 613 seers and this total will have to be converted into kilograms. Thus for every cart weighed three calculations have to be made before conversion into metric units is possible. One can imagine the difficulties that will be experienced by the factories which have to weigh more than a thousand carts or so every day and how essential it would be for them to engage additional staff. In addition, there is the possibility of errors creeping into the calculations.

Simple Tables Proposed

We tried to adopt the metric system in our factory in the 1958-59 season only, just to acquaint ourselves with the difficulties likely to be encountered and to find out solutions for them. Instead of educating the cultivators to the metric system by weighing in maunds and seers and then converting these weights on paper we decided to weigh the carts themselves into the metric system and show the cultivators the relation between the two systems with the help of the conversion of metric weights into their usual weights of maunds and seers. With this idea in view we removed the old weighbridge which was calibrated in maunds and seers and installed in its place one reading in kilograms. For a few days the cultivators were suspicious but by suitable propaganda and discussion we got over their prejudices and within a week most of the cultivators became fully conversant and began to talk in terms of kilos.

Our greatest difficulty was in the use of the existing conversion tables. However we proceeded, we still required two or three different steps of calculations before conversion could be completed. We, therefore,

made up tables of our own which convert directly the weight in maunds and seers to kilos and we added an extra column to this which gave the money value for that weight in terms of rupees and naye paise according to the Government statutory prices.

As the weighment in the case of bullock carts is expected to have an accuracy of 5 seers only, the table has been drawn up to that accuracy only. A portion of such a table is given in Annexure 1.* The table is intended only for guidance.

ANNEXURE 1

CONVERSION TABLE

MAUNDS & SEERS TO KILOGRAMS

Md	Sr	kg	Md	Sr	kg	Md	Sr	kg	Md	Sr	kg
0-5		5	4-20		168	8-35		331	13-10		495
0-10		9	4-25		173	9-0		336	13-15		499
0-15		14	4-30		177	9-5		341	13-20		504
0-20		19	4-35		182	9-10		345	13-25		509
0-25		23	5-0		187	9-15		350	13-30		513
0-30		28	5-5		191	9-20		355	13-35		518
0-35		33	5-10		196	9-25		359	14-0		523
1-0		37	5-15		201	9-30		364	14-5		527
1-5		42	5-20		205	9-35		369	14-10		532
1-10		47	5-25		210	10-0		373	14-15		537
1-15		51	5-30		215	10-5		378	14-20		541
1-20		56	5-35		219	10-10		383	14-25		546
1-25		61	6-0		224	10-15		387	14-30		551
1-30		65	6-5		229	10-20		392	14-35		555
1-35		70	6-10		233	10-25		397	15-0		560
2-0		75	6-15		238	10-30		401	15-5		565
2-5		79	6-20		243	10-35		406	15-10		569
2-10		84	6-25		247	11-0		411	15-15		574
2-15		89	6-30		252	11-5		415	15-20		579
2-20		93	6-35		257	11-10		420	15-25		583
2-25		98	7-0		261	11-15		425	15-30		588
2-30		103	7-5		266	11-20		429	15-35		593
2-35		107	7-10		271	11-25		434	16-0		597
3-0		112	7-15		275	11-30		439	16-5		602
3-5		117	7-20		280	11-35		443	16-10		607
3-10		121	7-25		285	12-0		448	16-15		611
3-15		126	7-30		289	12-5		453	16-20		616
3-20		131	7-35		294	12-10		457	16-25		621
3-25		135	8-0		299	12-15		462	16-30		625
3-30		140	8-5		303	12-20		467	16-35		630
3-35		145	8-10		308	12-25		471	17-0		635
4-0		149	8-15		313	12-30		476	17-5		639
4-5		154	8-20		317	12-35		481	17-10		644
4-10		159	8-25		322	13-0		485	17-15		649
4-15		163	8-30		327	13-5		490	17-20		653

*Full tables run into a number of pages. Only a few values are given here for information. Readers interested in full tables should contact the Director, National Sugar Institute, Kanpur.—Editor

Md	Sr	kg	Md	Sr	kg	Md	Sr	kg	Md	Sr	kg
17-25		658	23-10		868	28-35		1078	34-20		1288
17-30		663	23-15		872	29-0		1082	34-25		1292
17-35		667	23-20		877	29-5		1087	34-30		1297
18-0		672	23-25		882	29-10		1092	34-35		1302
18-5		676	23-30		886	29-15		1096	35-0		1306
18-10		681	23-35		891	29-20		1101	35-5		1311
18-15		686	24-0		896	29-25		1106	35-10		1316
18-20		690	24-5		900	29-30		1110	35-15		1320
18-25		695	24-10		905	29-35		1115	35-20		1325
18-30		700	24-15		910	30-0		1120	35-25		1330
18-35		704	24-20		914	30-5		1124	35-30		1334
19-0		709	24-25		919	30-10		1129	35-35		1339
19-5		714	24-30		924	30-15		1134	36-0		1344
19-10		718	24-35		928	30-20		1138	36-5		1348
19-15		723	25-0		933	30-25		1143	36-10		1353
19-20		728	25-5		938	30-30		1148	36-15		1358
19-25		732	25-10		942	30-35		1152	36-20		1362
19-30		737	25-15		947	31-0		1157	36-25		1367
19-35		742	25-20		952	31-5		1162	36-30		1372
20-0		746	25-25		956	31-10		1166	36-35		1376
20-5		751	25-30		961	31-15		1171	37-0		1381
20-10		756	25-35		966	31-20		1176	37-5		1386
20-15		760	26-0		970	31-25		1180	37-10		1390
20-20		765	26-5		975	31-30		1185	37-15		1395
20-25		770	26-10		980	31-35		1190	37-20		1400
20-30		774	26-15		984	32-0		1194	37-25		1404
20-35		779	26-20		989	32-5		1199	37-30		1409
21-0		784	26-25		994	32-10		1204	37-35		1414
21-5		788	26-30		998	32-15		1208	38-0		1418
21-10		793	26-35		1003	32-20		1213	38-5		1423
21-15		798	27-0		1008	32-25		1218	38-10		1428
21-20		802	27-5		1012	32-30		1222	38-15		1432
21-25		807	27-10		1017	32-35		1227	38-20		1437
21-30		812	27-15		1022	33-0		1232	38-25		1442
21-35		816	27-20		1026	33-5		1236	38-30		1446
22-0		821	27-25		1031	33-10		1241	38-35		1451
22-5		826	27-30		1036	33-15		1246	39-0		1456
22-10		830	27-35		1040	33-20		1250	39-5		1460
22-15		835	28-0		1045	33-25		1255	39-10		1465
22-20		840	28-5		1050	33-30		1260	39-15		1470
22-25		844	28-10		1054	33-35		1264	39-20		1474
22-30		849	28-15		1059	34-0		1269	39-25		1479
22-35		854	28-20		1064	34-5		1274	39-30		1484
23-0		858	28-25		1068	34-10		1278	39-35		1488
23-5		863	28-30		1073	34-15		1283	40-0		1493

News & Views

Metric System in Customs and Excise

Two important laws bearing on the conversion of customs and excise duties and cesses to metric units and decimal currency were passed recently by the Parliament. The acts, namely the Customs Duties and Cesses (Conversion to Metric Units) Act, 1960 (40 of 1960) and the Central Excises (Conversion to Metric Units) Act, 1960 (38 of 1960) received the President's assent on 20 and 21 September 1960 respectively, and have been brought into force from 1 October 1960 by notifications which are given below.

The Customs Duties and Cesses (Conversion to Metric Units) Act, 1960 (40 of 1960) amends the Indian Cotton Cess Act, 1923 (14 of 1923), Indian Lac Cess Act, 1930 (24 of 1930), the Indian Tariff Act, 1934 (32 of 1934), the Indian Coffee Act, 1942 (7 of 1942), Indian Coconut Committee Act, 1944 (10 of 1944), Indian Oilseeds Committee Act, 1946 (9 of 1946), Tea Act, 1953 (29 of 1953) and Coir Industry Act, 1953 (45 of 1953). Part I of the schedule to the Act gives the amended customs duties in terms of decimal coinage and metric units.

The Central Excises (Conversion to Metric Units) Act, 1960 (38 of 1960) amends the Central Excises and Salt Act, 1944 (1 of 1944), the Additional Duties of Excise (Goods of Special Importance) Act, 1957 (58 of 1957), the Mineral Oils (Additional Duties

of Excise and Customs) Act, 1958 (27 of 1958), the Khadi and Other Handloom Industries Development (Additional Excise Duty on Cloth) Act, 1953 (12 of 1953), the Dhoties (Additional Excise Duty) Act, 1953 (39 of 1953), Cotton Fabrics (Additional Excise Duty) Act, 1957 (33 of 1957) and Sugar Export Promotion Act, 1958 (30 of 1958). The First Schedule to the Act lists the converted excise duties in metric units and decimal coinage and substitutes the First Schedule of the Central Excises and Salt Act, 1944. The Second Schedule substitutes the First Schedule of the Additional Duties of Excise (Goods of Special Importance) Act, 1957.

In converting the customs and excise duties and cesses it is not possible to adopt the exact equivalents of the existing units and rates in the metric system, since such conversion would result in very odd practical rates in a number of cases, and operation of such rates would be inconvenient both to the assessee as well as to the Administration and would render the assessment and collection of duties needlessly arduous. The rates have, therefore, been rounded off resulting in minor variation in them, but the overall effect of such variations would be insignificant. Simultaneously with the conversion of rates, opportunity has also been taken to assess the duties on petroleum products on the basis of the standard temperature of 15° C.

The two notifications issued to bring these two Acts into force are as follows:

No. S.O. 2348 dated 23rd September 1960

In exercise of the powers conferred by sub-section (2) of section 1 of the Customs Duties and Cesses (Conversion to Metric Units) Act, 1960 (40 of 1960), the Central Government hereby appoints the 1st day of October 1960, as the date on which the said Act shall come into force.

G. S. R. 1098 dated 24th September 1960

In exercise of the powers conferred by sub-section (2) of section 1 of the Central Excises (Conversion to Metric Units) Act, 1960 (38 of 1960), the Central Government hereby appoints the 1st day of October, 1960, as the date on which the said Act shall come into force.

Extension of Central Act to Jammu & Kashmir

The Standards of Weights and Measures (Amendment) Act, 1960 (41 of 1960), which received the assent of the President on 21 September 1960, enables the Central Government to extend the provisions of the Standards of Weights and Measures Act, 1956 (89 of 1956) to Jammu and Kashmir. The ten year transition period for J & K would be counted from the date on which the Standards of Weights and Measures (Amendment) Act, 1960 comes into force.

In accordance with the following notification the Act has been applied to Jammu and Kashmir from 1 October 1960.

No. S.O. 2349 dated 23rd September 1960.

In exercise of the powers conferred by sub-section (2) of section 1 of the Standards of Weights and Measures (Amendment) Act, 1960 (41 of 1960), the Central Government hereby appoints the 1st day of October, 1960, as the date on which the said Act shall come into force.

The Standards of Weights and Measures (Amendment) Act, 1960 reads generally as follows:

THE STANDARDS OF WEIGHTS AND MEASURES (AMENDMENT) ACT, 1960

No. 41 of 1960

[21st September, 1960]

An Act to amend the Standards of Weights and Measures Act, 1956,

Be it enacted by Parliament in the Eleventh Year of the Republic of India as follows :—

1. (1) This Act may be called the Standards of Weights and Measures (Amendment) Act, 1960.

(2) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

2. In section 1 of the Standards of Weights and Measures Act, 1956 (hereinafter referred to as the principal Act)—

(i) in sub-section (2), the words “except the State of Jammu & Kashmir” shall be omitted ; and

(ii) to sub-section (3), the following proviso shall be added, namely :—

“Provided that, in relation to the State of Jammu & Kashmir, the said period of ten years shall be computed from the date on which the Standards of Weights and Measures (Amendment) Act, 1960 comes into force.”

3. In section 17 of the principal Act, sub-section (3), the following sub-section shall be substituted, namely:—

“Every rule made under this section shall be laid as soon as may be after it is made, before each House of Parliament while it is in session for a total period of thirty days which may be comprised in one session or in two successive sessions, and if before the expiry of the session in which it is so laid or the session immediately following, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be, so however that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.”

Recent Additional Notifications

In addition to the three notifications mentioned above for customs and cesses, excise and Jammu and Kashmir, the following three notifications have been issued by the Government of India.

1. Extension for Defence Department and Undertakings

It is expected that all the Defence Establishments in India whether in the notified areas or elsewhere will change over to the metric system of weights for all transactions from

1st April 1961. The notification which would enable this reads as follows:

No. S.O. 2394 dated 28th September, 1960.

Whereas, by virtue of the notification of the Government of India in the Ministry of Commerce and Industry No. S.O. 1251 dated the 24th June, 1958 the provisions of the Standards of Weights and Measures Act, 1956 (89 of 1956), came into force in respect of, among others, certain classes of undertakings including Government Departments and commercial and industrial undertakings owned or controlled by Government in so far as they undertake the purchase or supply of stores, including drugs;

And whereas, by the notification of the Government of India in the Ministry of Commerce and Industry No. S.O. 1252 dated the 24th June, 1958, the Central Government permitted, in respect of the classes of undertakings aforesaid, the continuance of the use, for a period of two years from the 1st day of 1958, of any weight or measure which, immediately before that day, was in use in respect of the said classes of undertakings;

Now, therefore, in exercise of the powers conferred by sub-section (1) of Section 14 of the Standards of Weights and Measures Act aforesaid and in partial modification of S.O. 1252 aforesaid, the Central Government hereby permits, in respect of the departments and undertakings controlled by the Army, the Navy and the Air Force, the continuance of the use, for a further period of six months from the 1st day of October, 1960, of any weight or measure which, immediately before that day, was in use in respect of the said departments and undertakings.

2. Extension of Transition Period for Sale of Cotton Cloth

In the cotton textile industry, in the sale of yarn and cotton textile products (other than cloth) as also the stamping of cloth, yarn and other cotton textile products use of metric weights and measures becomes compulsory from 1 April 1961, although from 1 October 1960 it has become compulsory for the sale of cotton cloth and purchase of cotton. In order to enable the cotton textile industry to change over in its sales, on the same date the compulsory use of the metric length measures will also be enforced from 1 April 1961. The notification enabling this reads as follows:

No. S.O. 2395 dated 28th September 1960.

Whereas, by virtue of the notification of the Government of India in the Ministry of Commerce and Industry S.O. 1251 dated the 24th June, 1958, the provisions of the Standards of Weights and Measures Act, 1958 (89 of 1956), came into force in respect of, among others, cotton textile mills in so far as they undertake the purchase of cotton or sale of cloth;

And whereas, in the notification of the Government of India in the Ministry of Commerce and Industry S.O. 1252 dated the 24th June, 1958, the Central Government permitted, in respect of, among others, cotton textile mills, the continuance of the use, for a period of two years from the 1st day of October, 1958, of any weight or measure which, immediately before that day, was in use in respect of the said cotton textile mills ;

Now, therefore, in exercise of the powers conferred by sub-section (1) of section 14 of the Standards of Weights and Measures Act aforesaid and in partial modification of S.O. 1252 aforesaid, the Central Government hereby permits, in respect of cotton textile mills in so far as they undertake the sale of cloth, the continuance of the use, for a further period of six months from the 1st day of October, 1960, of any measure which, immediately before that day, was in use in relation to the sale of cloth.

3. Secondary Units of Area

No. S.O. 2134 dated 26th August, 1960.

In pursuance of section 12 of the Standards of Weights and Measures Act, 1956 (89 of 1956), the Central Government hereby declares in relation to the primary unit of area, the following units to be its secondary units, namely :—

Secondary units in relation to square metre

Are = 10^2 square metres.

Hectare = 10^4 square metres.

Conference on Metric System in Technical Education

A Conference to consider the adoption of the metric system in higher and technical education was held in the Ministry of Commerce and Industry, on 23rd October 1960, under the Chairmanship of Prof. M. S. Thacker. A review of the recommendation of the Conference would be published in the next issue of *Metric Measures*. The agenda

for the meeting was as follows :

- (1) Progress in the preparation of the necessary standards.
- (2) Supply of measuring tools and instruments calibrated in metric units to technical institutions.
- (3) Revision of textbooks in use, and preparation of new textbooks.
- (4) Phased programme for the adoption of the metric system in higher technical education.

Third Conference of Controllers

The third Conference of Controllers of Weights and Measures will be held at Bhubaneswar in Orissa, on 14-15 November 1960. The provisional agenda for the Conference is as follows:

- (1) Review of progress in enforcing metric weights in areas where they become compulsory on 1-10-1960.
- (2) Introduction of metric capacity measures.
- (3) Publicity.
- (4) Stamping of weights, measures and instruments manufactured in one State for use in another State.
- (5) Marking of contents of packed goods offered for sale in notified areas in metric units—packages already with traders on 1-10-1960.
- (6) Subjects proposed by Controllers.

Important recommendations of the Conference will be published in the January 1961 issue of *Metric Measures*.

Sale of Cement

The cement industry has changed over to the use of metric weights from October 1960. Under the new system each bag will contain 50 kg cement net, exclusive of the weight of the bag and will be marked accordingly.

The price at which the State Trading Corporation will sell cement has been fixed at Rs. 116.75 for a metric tonne of packed cement as against the price of Rs. 117.50 for the British ton. The prices for retail sale of cement in each State under the new system are to be fixed by the respective State Governments.

'Metric Paddhati' (Bengali Journal)

It is understood that the annual subscription of the Bengali bi-monthly, 'Metric Paddhati', has since been reduced to Rs. 1.50 with no reduction in pages and the price per single copy has been refixed at 25 nP. only from the previous 40 nP.

Units for Bullion

It will be recollected that the unit of 1 gram was recommended for quotation of prices of gold by the Conference held in January 1960 in the Ministry of Commerce and Industry. The Bombay Bullion Association had also been using this unit for some time. It now appears that the Reserve Bank has shown a preference for the unit of 10 grams for the quotation of gold prices and the Bombay Bullion Association and others concerned have accepted this recommendation. Silver quotation will continue to be per kilogram. It appears that the unit of trading accepted in Bombay for silver is 10 kg and for gold 1 kg. The tables for price conversion for gold on the basis of 10 g unit are given on page 55. These replace the tables published earlier for gold on the 1 g basis.

Book Review

BULLETIN de L'ORGANISATION INTERNATIONALE de METROLOGIE LEGALE (French) —published by the Bureau Internationale de Metrologie Legale, 9, Avenue Franco Russe—Paris VII—France, pp. 56, Vol. 1, January 1960.

The International Organization of Legal Metrology, (OIML) was introduced to readers of *Metric Measures* in the May 1958 issue by M. Costamagna, the Director of the International Bureau of Legal Metrology, which is the secretariat of the Organization. The OIML has now published the first issue of its monthly magazine *Bulletin de L'Organisation Internationale de Metrologie Legale*.

The first issue contains an article by M. Jacob (Belgium), President of the International Committee of Legal Metrology, in which the International Organization of Legal Metrology is introduced. The second article is by G. D. Bourdoun of USSR who introduces the Soviet Service of Legal Metrology. The third article is a posthumous note by M. Z. Rauszer of Poland on the magnitudes and units of measure. The next item deals with legislation and regulations of legal metrology and in this issue, a draft of the decree relating to units of measure and control of measuring instruments, which is intended to replace the present French practice is given. This is a comprehensive legal document and besides defining the units recommended by the International Bureau of Weights and Measures, namely, the metre, kilogram, second, ampere,

degree Kelvin and the candela also deals with units of area, volume, plane and solid angles, volumes, frequencies, speed, velocity, acceleration, force, work and energy, heat, power, electric units, such as EMF, resistance and the like, optical units, luminance, illumination and the dioptré. A number of other units for various types of uses are also indicated. A description of a mobile bureau of verification in Austria by M. Alois Rust follows. An article by J. Jasnorzewski deals with the creation of a microfilm documentation centre in the International Bureau of Legal Metrology. The *Bulletin* then gives a review of the work of the OIML, constitution and method of work of secretariat reporters and then lists comprehensively various subjects proposed or under study with the secretariat-reporters. The *Bulletin* ends with the list of member countries, their representatives and officers of OIML and the Bureau.

The *Bulletin* is extremely well printed and brought out. It may be expected to contribute substantially to the unification of weights and measures practices *i.e.* legal metrology, internationally by providing a forum for the exchange of views on this vital subject which is now assuming great importance in the light of the scientific and technical progress made during this century and particularly during the last decade. The future issues of the *Bulletin* will be read and used very widely

in the countries which are interested in establishing and strengthening of legal metrology in their areas.

It is intended to translate or summarize important articles and information from the *Bulletin*, which will be of interest to Indian readers in the present context of the metric reform, and publish them in the future issues of *Metric Measures*.

ISI HANDBOOK OF QUANTITIES, CONVERSION FACTORS, FORMULAE AND TABLES (in English)—published by the Indian Standards Institution, Manak Bhavan, 9, Mathura Road, New Delhi, pp. 163, July 1960, Price : Rs. 7.50.

The Indian Standards Institution has brought out a 'Handbook of Quantities, Conversion Factors, Formulae and Tables' in the context of the Government's policy of changing over to the metric system. This handbook, as stated in its introduction, is intended to serve as a source of basic data required for the students of the first degree course in science, engineering and technology. The handbook is divided into three Sections: Section A: Quantities, Units and Conversion Factors.

Section B : Physical and Chemical Constants.

Section C : Mathematical Formulae and Tables.

With the adoption of the metric system in India, it is necessary for every one, and particularly students, to develop concepts in terms of the new system, and its relationship to the existing FPS system. In industries and in engineering, for a considerable period after the change-over to the metric system in commercial transactions, both the systems may have to co-exist, and the need, therefore, for conversions from the existing to the metric system remains and this handbook will serve as a means of ready reference for the various units used in engineering and technology and in general science.

In Section A, comprising of quantities, units and conversion factors, definitions of the various units of space and time, mechanics, temperature and heat, light, sound, electricity and magnetism are given. All these definitions follow the latest knowledge in the field and care has been taken to conform to the internationally accepted definitions for most of the units. Then follow a series of conversion tables for length, volume, area, capacity, mass, concentration, specific volume, moment of inertia and various other items and it is here that the student in engineering and general science will get the corresponding concepts in the British and the metric systems. A table of wire and sheet metal gauges and Indian standard thicknesses of sheet and diameters of wire are also given, the latter expressing the thicknesses in millimetre sizes will do away, on the adoption of metric system, with terminologies like numbers, S.W.G., B.G., A.W.G. etc. used in Continental and American practice.

Section B contains physical and chemical constants like properties of elements, gases, liquids and solids and includes properties of structural sections also. Units commonly used in aeronautics and telecommunications also find a place in this Section.

Section C deals mainly with mathematical formulae and tables and will be a useful source for the more common formulae in algebra, plane and spherical trigonometry and in calculus. The handbook ends with the usual logarithmic and trigonometric tables.

It is claimed that this handbook is intended for the students of the first degree course in science, engineering and technology but it will be of constant use throughout the degree course, and even beyond the college career. It may be pertinent to ask why the usual formulae of geometry, spherical trigonometry and others should find a place in this handbook, as these are generally found in

every textbook. Similarly, properties of structural sections and loaded beams are given in any textbook of applied mechanics or structural engineering. In the context of switching over to the metric system, perhaps it would have been more instructive if full use of the new units were made and numerical examples involving the new units were given as an appendix. This procedure might have acted as an impetus in the mind of the student to understand the new units from the very beginning of his college career. By emphasising the conversion aspect the objective of getting a mental concept of the metric system may be retarded. Further, as generally expected from a handbook of this nature, useful information regarding many of the common items like rivets and rivetted joints, ball and roller bearings, toothed gears, taper shanks, cotters, pins etc., do not find a place. Tables for weights of materials, values of I & Z for various sections, screw threads for water, gas and steam piping, standard forms of screw threads, dimensions of bolts and nuts and screwed fastenings, angle and tapers etc., also do not find a place in this handbook. Most of the new Indian Standards for these items are either published or in the process of finalization, and it would have been a useful addition to the handbook if all the information on the new metric sizes had been included in the handbook.

The handbook is very well got up and it is hoped that it will serve the needs of the young college student, but it must be said that the price, which is Rs. 7.50 nP may be too high to be within reach of the common student as it is intended to be. However, as a compendium of useful information, particularly in the context of the industries switching over to the metric system it will, it is hoped, meet the requirements to a large extent.

LAVOSSIERS CHART OF THE METRIC SYSTEM OF WEIGHTS AND MEASURES (in English, Malayalam, Tamil, Hindi, Telugu, Canarese and in all important Indian Languages)—A chart of metric weights and measures published by the Moneys Corporation (Private) Ltd.; T.C. 21/834 Sreekanthwaram, Trivandrum-1, Price : Rs. 2 (per sheet) and Rs. 4.50 (per sheet mounted in cloth, varnished and provided with two rollers).

Moneys Corporation (Private) Ltd., have published a chart showing the various aspects of weights and measures in the metric system. The chart in English starts with a table showing the prefixes indicating relative values of the various metric units and explains the basis of metric units in a simple way. For example, the metre is defined as one ten millionth of the distance from the North pole to the equator and the gram is the weight of a cubic centimetre of distilled water at 4° Centigrade. These definitions have been replaced a long time back by new definitions, but they would serve to illustrate the metric system to children and students. The chart then goes on to explain the various units of length, area, capacity, volume, and weights and gives pictures of weights and measures recommended for commercial use.

Conversion factors for units in the British and the Indian systems are given. Tables showing equivalents of palams in grams, viss in kilograms and grams, standard seer in kilograms, tola in grams, pound in kilograms, ounce in grams, maund in kilograms and grams etc., are also given. Existing weights used in Madras and Kerala have received special attention.

The chart may be useful for the class room.

The English edition which is reviewed here contains some minor errors and it is hoped that these will be corrected in the future issues of the charts.

Licensed Manufacturers, Dealers and Repairers of Weights and Measures(10)

Metric Measures has been publishing a series of lists of manufacturers, dealers and repairers of weights and measures, weighing and measuring instruments licensed by the Governments in the various States and Union Territories under their Weights and Measures (Enforcement) Acts in their respective jurisdiction. This is the tenth list. The first list appeared in the March 1959 issue.

Progressively steps are being taken for licensing manufacturers, dealers and repairers in all States and further lists of licensees would be published in *Metric Measures* as this work progresses.

The number in brackets against the name of the State or Union Territory indicates the particular instalment number of the list of that State or Union Territory. The issues of *Metric Measures* in which previous lists appear are also shown suitably.

An analysis of the licensees, including the present list, shows that the total number of licensees, in 12 States and 3 Union Territories is 419 manufacturers, 1,567 dealers and 344 repairers. The details of published information are as follows :

Sl. No.	State/Union Territory	Licensees		
		Manufacturers	Dealers	Repairers
(1)	Andhra Pradesh	25	25	16
(2)	Bihar	20	69	34
(3)	Delhi	21	73	18
(4)	Himachal Pradesh	1	3	0
(5)	Kerala	4	125	0
(6)	Madhya Pradesh	13	84	0
(7)	Madras	62	147	35
(8)	Maharashtra & Gujarat	46	324	112
(9)	Mysore	37	232	27
(10)	Orissa	8	13	0
(11)	Punjab	14	248	17
(12)	Rajasthan	16	69	18
(13)	Tripura	0	12	0
(14)	Uttar Pradesh	62	55	21
(15)	West Bengal	50	75	30
		379	1,554	328

LICENSED MANUFACTURERS, DEALERS & REPAIRERS OF WEIGHTS & MEASURES (10)

HIMACHAL PRADESH (1)

Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Nahan Foundry Ltd., Nahan (Government of India Undertaking), Sirmur District, Nahan.	Cast Iron Weights

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	Nahan Foundry Ltd., Nahan (Government of India Undertaking), Sirmur District, Nahan.	Weights.
(2)	Prabhu Mal Ramchander, Hardware Merchants, Chowk Bazar, Nahan, Sirmur District.	Weights.
(3)	Ramsarup Ved Parkash, Iron & Paint Merchants, Bara Chowk, Nahan, Sirmur District.	Weights.

KERALA (3)

In the November 1959 and March 1960 issues of *Metric Measures* lists of licensed manufacturers and dealers of weights and measures in Kerala State was published. The following is a list of dealers subsequently licensed by the Government of Kerala:—

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	P. Abdul Rahiman Kutty, Managing Partner, Give & Take Stores, Camp Bazaar, Cannanore.	Weights & Measures.
(2)	B. Abdulla Kumhi, Hardware Merchant, CE. 210, (New Hardware), Camp Bazaar, Cannanore.	Weights, Measures, Weighing and Measuring Instruments.
(3)	Q. Aboobakker Sait, Hardware Merchant, Mukkada Bazaar, Quilon.	Weights, Measures, Weighing and Measuring Instruments.
(4)	K.A. Akbar Badshah, Hardware Merchants, Cochin-2	Weights, Measures, Weighing and Measuring Instruments.
(5)	Central Hardware, Palayam Road, Calcutta-1	Weights and Measures.
(6)	Chakiat Brothers, P.B. No. 34, Broadway, Ernakulam	Weights, Scales and Balances.
(7)	M.U. Cherian & Co., Market Road, Alwaye	Weights, Measures, Weighing and Measuring Instruments.
(8)	P.C. Cherian Pularekal, General Merchant, Puramattom P.O., Thiruvella.	Weights, Measures, Weighing and Measuring Instruments.
(9)	C.V. Cheru & Son, Hardware & Leather Merchants, Pattambi	Weights, and Measures.
(10)	Cochin Commercial Union Ltd., Hardware Merchants, Ernakulam-1.	Weights and Measures.

Dealers (contd.)

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(11)	Das Brothers, Hardware Merchants, Thodupuzha	Weights and Measures.
(12)	A.J.Devassy, Proprietor, C. Laxmana Pai, Merchants, Hosdurg, Kanhangad, P.O. Hosdurg, Cannanore District.	Weights.
(13)	M.D'Souza & Sons, Bazaar Road, Cochin-2	Weights, Beam Scales and Platform Scales.
(14)	C.A. Galiakotwala & Co. (P) Ltd., Mattanchery, P.B. No. 34, Cochin-2.	Weights and Measures.
(15)	M.A. Gopalan, Stationery & Hardware Merchant, Kizhakkambalam, Ernakulam Distt.	Weights, Measures, Weighing and Measuring Instruments.
(16)	Gosris Hardwares, Cloth Bazaar Road, Ernakulam	Weights and Measures.
(17)	Hajee Hassan Yacoob Sait & Sons, Hardware & Paint Merchants, Shop No. 5, Kayamkulam.	Weights, Measures, Weighing and Measuring Instruments.
(18)	Hilal Traders, 9/627, Big Bazaar, Calicut-1	Weights, Measures, Weighing and Measuring Instruments.
(19)	Jaffer Stores, Hardware & Paint Merchants, V.K. Road, Palghat.	Weights, Measures, Weighing and Measuring Instruments.
(20)	A. Kadir Kunhi & Son, General Merchant, Cannanore ..	Weights, Measures, Weighing and Measuring Instruments.
(21)	Kerala Co-operative Society Ltd., No. 3032, Channanakavoo, Alleppey.	Weights, Measures, Weighing and Measuring Instruments.
(22)	Kerala Hardware Stores, Big Bazaar, Palghat	Weights, Measures, Weighing and Measuring Instruments.
(23)	K.I. Kuriakose & Sons, Hardware Merchants, Changanachery.	Weights, Measures, Weighing and Measuring Instruments.
(24)	C. Madhava Pai, Proprietor, C. Laxmana Pai, Merchants, Hosdurg, Kanhangad, P. O. Hosdurg, Cannanore Distt.	Weights, Measures and Measuring Instruments.
(25)	Madonna Agencies Enterprise, Sole Proprietor, Miss Mary Mathew, Kunjappu, P. O. Road, Trichur.	Weights, Measures and Weighing Instruments.
(26)	V.M. Mammoo, Hardware Merchant, Cloth Bazaar Road, Ernakulam.	Weights, Measures, Weighing and Measuring Instruments.
(27)	A. Mohammed Mohideen & Bros., Hardware Merchants, Big Bazaar, Palghat.	Weights, Measures, Weighing and Measuring Instruments.
(28)	P.S. Musthafa Rawther, Metal & Hardware Merchant, Kavala Merchant, Kavala, Changanacherry.	Weights and Measures.
(29)	M.K. Nambiar, Proprietor, M.K. Nambiar & Co., Kallai Road, Calicut-2.	Weights, Measures, Weighing and Measuring Instruments.
(30)	New Guna Shenoy Co., Direct Importers & Hardware Merchants, Kottayam.	Weights, And Measures.
(31)	New Guna Shenoy Co., Direct Importers of Hardware Machinery Etc., Broadway, Ernakulam.	Weights, Measures, Weighing and Measuring Instruments.
(32)	New Guna Shenoy Co., Cochin	Weights, Measures, Weighing and Measuring Instruments.
(33)	Pallipurathukaran Kunju Vareed Antony, Hardware Merchant, High Road, Trichur.	Weights and Measures.
(34)	M.M. Pylee, Hardware Merchant, Perumbavoor	Weights, Measures, Weighing and Measuring Instruments.

LICENSED MANUFACTURERS, DEALERS & REPAIRERS OF WEIGHTS & MEASURES (10)

Dealers (Contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(35)	M. Raghavan, Stationery Merchant, Mankavu, Kozhikode-7.	Weights and Measures
(36)	C. Raghavan & Sons, Hardware Merchants, Camp Bazaar, Cannanore	Weights and Measuring Instrument
(37)	P.M. Samuel, Hardware Merchant, Pathanamthitta	Weights, Measures, Weighing and Measuring Instruments.
(38)	C.S. Seethy & Bros., Hardware Merchants, Kothamangalam	Weights and Measures.
(39)	S. Subramonia Pullai, Hardware & Paint Merchant, Chalai Bazaar, Trivandrum	Weights, Measures, Weighing and Measuring Instruments.
(40)	Sukumaran Marakattapurathur Kodai Amsom, Post Pantherankavu	Weights, Measures, Weighing and Measuring Instruments.
(41)	C. Sumughom Vaidier, Janatha Hardware Mart, N. Parur	Weights and Measures.
(42)	Syed Mohamed Hameed Sons, General Merchants, Alleppey	Weights, Measures, Weighing and Measuring Instruments.
(43)	A.V. Thoma & Sons, Iron Merchants, High Road, Trichur	Weights, Measures, Weighing and Measuring Instruments.
(44)	T.L. Thomas & Sons, Hardware Merchants, Market Road, Irinjalakuda.	Weights and Measures.
(45)	Trikkandiyur Producers'-cum-Consumers' Co-operative Society Ltd., No. F. 1,254, Tirur	Weights, Measures, Weighing and Measuring Instruments.
(46)	Union Stores, Kakkodi, Kozhikode Distt.	Weights, Measures, Weighing and Measuring Instruments.
(47)	M.V.Uumese, Kerala Hardware Stores, Market Road, Alwaye	Weights and Measures.
(48)	Unlon Trading Co., Punalur, Quilon District	Weights, Measures, Weighing and Measuring Instruments.
(49)	Usman Koya, Hardware Merchant, Big Bazaar, Kozhikode	Weights, Measures and Weighing Instruments.
(50)	R. Variar Sons, Jewellers, Kozhikode	Weights, Measures and Measuring Instruments.
(51)	Varkey Cherian, Vattakunnel, Hardware Merchant, Palai	Weights and Measuring Instruments

CORRECTION

The license of M/s Venus Light Casting Works, 45, Erukkancheri High Road, Vyasarpadi, Madras-12, appearing as item No. 29 under 'Manufacturers' in Madras list on page-41 of November 1959 issue of Metric Measures, has since been cancelled.

MADRAS (4)

In the November 1959 and March and September 1960 issues of *Metric Measures*, lists of licensed manufacturers, dealers and repairers of weights and measures were published. The following is a list of manufacturers, dealers and repairers subsequently licensed

by the Government of Madras under the Madras Weights and Measures (Enforcement) Act, 1958.

Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	S. Ahmed Ali, Dilawar Akbar, Industrial Works, (State aided) 1/126, Moore Street Madras-1.	Measures
(2)	Arkay Engineering Company, 38, Errabalu Chetty Street, Madras-1.	Weights and Measures
(3)	V. Arumugham, Anandan Foundry, 5/7 Vagraram, Aminjikarai, Madras.	Weights and Measures
(4)	A.R. Dhanaraman, 12, Maruthuvar Street, Tirupattur, N.A.	Weights
(5)	E.S. Haji & Co., 12, Sembudoss Street, Madras-1.	Litres
(6)	Indian Traders, 158, Broadway, Madras-1.	Weights and Measures
(7)	Karpaga Industries, 10-C, Waltax Road, Madras-3	Weights and Measures
(8)	P.V. Krishnan & Sri V.R. Subramanya Sithapathi, New Royal Engineering Works, 32/6, Katpadi Road, Vellore.	Weights
(9)	Royal Hardware Mart, 30, Devaraja Mudali Street, Madras-3	Measures
(10)	Somanathan Gopalan, South India Gold Weight Works, 10, Yegoppa Chettiar Lane, Karaikudi-1.	Bullion Weights
(11)	K.P.A. Sundararaj, 40, Chetty Street, Tirupattur, N.A.	Weights and Measures

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	Ahmed Ali, Industrial Works, 1/126, Moore Street, Madras-1.	Weights, Measures, Weighing and Measuring Instruments.
(2)	Secretary, Chengam Co-operative Marketing Society Ltd. Chengam P. O.	Weights, Measures, Weighing and Measuring Instruments.
(3)	V. Chokanathan Chetty & Sons, Iron and Paint Merchant, Selvapet, Salem-2.	Weights, Measures, Weighing and Measuring Instruments.
(4)	T.E. Dhanapal, 67, Lawrance Road, Tiruvettipuram, Cheyyar, N.A.	Weights, Measures, Weighing and Measuring Instruments.
(5)	S. Desikan, Jaya Trading Co., 129-B, Car Street, Tiruvannamalai, N.A.	Weights, Measures, Weighing and Measuring Instruments.
(6)	Doraiswamy Mudaliar, Iron Merchant, Tiruvettipuram, North Arcot District.	Weights, Measures, Weighing and Measuring Instruments.
(7)	M.J. Doraiswamy Naidu & Sons, Iron Merchant, 62, Bazaar Street, Madurantakam.	Weights, Measures, Weighing and Measuring Instruments.
(8)	S. Ekambaram, M/s India Scales, 45, E.H. Road, Vyasarpadi, Madras-12.	Weights, Measures, Weighing and Measuring Instruments.
(9)	Francis Machine Tools Corporation, 23, Broadway, Madras-1.	Weights, Measures, Weighing and Measuring Instruments.
(10)	Haji & Co., 12, Sembudoss street, Madras-1.	Weights, Measures, Weighing and Measuring Instruments.

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(11)	Indian Traders, 158, Broadway, Madras-1	Weights, Measures, Weighing and Measuring Instruments.
(12)	Jain Singh Jain, Mysore Engineering Corporation, 79/10, Sembudoss Street, Madras-1.	Weights, Measures, Weighing and Measuring Instruments.
(13)	M. K. N. D. Kasiraja Nadar & Hardware & Co. Paint Merchant, Madurai.	Weights, Measures, Weighing and Measuring Instruments.
(14)	Krishna Myer, Myers Scales Co., 9/22-C, Broadway, Madras-1	Weights, Measures, Weighing and Measuring Instruments.
(15)	Kuppuswamy Chettiar, Pelur Road, Chengam	Weights, Measures, Weighing and Measuring Instruments.
(16)	V.A.A. Lakshmana Nadar & Bros. Hardware Merchant, 90, East Masi Street, Madurai.	Weights, Measures, Weighing and Measuring Instruments.
(17)	Monasubha & Co. (P) Ltd., 82, E Royapettah High Road, Madras-4	Weights, Measures, Weighing and Measuring Instruments.
(18)	T.K. Munirathnam, 26, Bazaar Street, Tirukalikundram	Weights, Measures, Weighing and Measuring Instruments.
(19)	G.N. Narasimhan, Engineering & Scientific Works, Chromepet, Madras.	Weights, Measures, Weighing and Measuring Instruments.
(20)	New Royal Engineering Works, 32/6, Katpadi Road, Vellore	Weights, Measures, Weighing and Measuring Instruments.
(21)	O.A.S. Oobaidullah, Bazaar Street, Kallakurichi	Weights, Measures, Weighing and Measuring Instruments.
(22)	P.R.S. Pakkir Mohideen, Deen Stores, 11, Bazaar Street, Virudhunagar.	Weights, Measures, Weighing and Measuring Instruments.
(23)	T.A.S. Palani Mudaliar, 26/27-A, Bazaar Street, Tindivanam	Weights, Measures, Weighing and Measuring Instruments.
(24)	A.S.S. Prahasam 31, Market Road, St. Thomas Mount, Madras.	Weights, Measures, Weighing and Measuring Instruments.
(25)	C. Ramanujam, 53 Bazaar Street, Tindivanam	Weights, Measures, Weighing and Measuring Instruments.
(26)	K.P. Ramiiah Chettiar & Sons, Bazar Street, Kallakurichi	Weights, Measures, Weighing and Measuring Instruments.
(27)	G. Seshachalam Naidu, Bhoopathy Stores, Tiruppapuliur	Weights, Measures, Weighing and Measuring Instruments.
(28)	A. Somarapuri, Railway Feders Road, Coverapet.	Weights, Measures, Weighing and Measuring Instruments.
(29)	Swamy Stores, 40-C, Bazaar Street, Tindivanam	Weights, Measures, Weighing and Measuring Instruments.
(30)	Tindivanam Cooperative Marketing Society Ltd., No. E. 1442, Tindivanam.	Weights, Measures, Weighing and Measuring Instruments.
(31)	Unicorn Co. (Motors) Private Ltd. Garden Road, Ooty	Weights, Measures, Weighing and Measuring Instruments.
(32)	G.K. Vasudave Gupta & Sons, Sri Venkateswara Hardware Stores, 25/48, Fort Main Road, Shevapet, Salem-2.	Weights, Measures, Weighing and Measuring Instruments.
(33)	D. Veerabhadran, Manellore, Panruti (T.K.)	Weights, Measures, Weighing and Measuring Instruments.
(34)	M. Veluswamy Chettiar, 41, Venkataramier Street, Pollachi	Weights, Measures, Weighing and Measuring Instruments.
(35)	Venu Pillai, Bazar Street, Panruti	Weights, Measures, Weighing and Measuring Instruments.

Repairers

Sl. No.	Name and Address of Repairers	Details of Article Repaired
(1)	A.R. Dhanaraman, 12, Maruthuvar Street, Tirupattur, North Arcot.	Weights, Measures, Weighing and Measuring Instruments.
(2)	N. Damodaran, R.K. Industries, Radhakrishna Nilayam, Railway Station Road, Tiruvellore.	Weights, Measures, Weighing and Measuring Instruments.
(3)	S. Ekambaram, India Scales, 45, E.H. Road, Vysarpadi, Madras-12.	Weights, Measures, Weighing and Measuring Instruments.
(4)	Gopal Tinker Works, 49, Linghi Chetty Street Madras-1	Weights, Measures, Weighing and Measuring Instruments.
(5)	A. Gurunath, 15, Stringers Street, Madras-1	Weights, Measures, Weighing and Measuring Instruments.
(6)	India Trades, 153, Broadway, Madras-1	Weights, Measures, Weighing and Measuring Instruments.
(7)	A. Krishnamurthy, 72, Chinnamman Koil Street, Chingleput	Weights, Measures, Weighing and Measuring Instruments.
(8)	R. Natarajan, 60, Chinnammankoil Street, Chingleput	Weights, Measures, Weighing and Measuring Instruments.
(9)	New Royal Engineering Works, 32/6, Katpadi Road, Vellore	Weights, Measures, Weighing and Measuring Instruments.
(10)	Rabindernath, Masseys, 4-B, 4-G, North Railway Terminus Road, Royapuram, Madras	Weights, Measures, Weighing and Measuring Instruments.
(11)	S.M. Thanjavamoorthy Naicker, 61, Chinnammankoil Street, Chingleput	Weights, Measures, Weighing and Measuring Instruments.
(12)	Una & Company, 10, Muthiah Mudaly Street, Old washermenpet, Madras-21	Weights, Measures, Weighing and Measuring Instruments.

MAHARASHTRA (1)

The present list contains names of manufacturers, dealers and repairers licensed by the State of Maharashtra since its creation. The Gujarat list was not available at the time of going to press and it is hoped to publish it in the next issue. To get a general idea of the total number of manufacturers, dealers and repairers, the total given earlier is for the old Bombay State plus those published in this issue under Maharashtra.

Manufacturers

Serial No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Abbasbhai Yusufali Dohadwala, 29, Stable Street, Lambi Chawl, Bombay-8	Conical capacity measures.
(2)	Bajrang Metal Works, Itwari Bazar, Nagpur-2	Brass Weights.
(3)	Damle Iron Works, Baliram Peth, Jalgaon, East Khandesh	Weights.
(4)	Everest Tapes, Swastik House, Block No. 7, 383, Lamington Road, Bombay-7	Measuring Tapes.

Manufacturers (Contd.)

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(5)	C.P. Foundry Works, Itwari Bazar, Nagpur	Weights.
(6)	Ganesh & Co., 215-A, Ripon Road, Rangunwala Compound, Bombay-8	Brass, Weights & Beam Scales.
(7)	Lallubhai Amichand Private Ltd. 48/50, Kansara Chawl, Bombay-2	Dipping type Conical capacity Measures.
(8)	Larsen & Toubro Ltd., I.C. House, Dougall Road, Ballard Estate, P.B. No. 278, Bombay-1.	Measuring Instruments (Petrol Pumps).
(9)	Mansukhlal Narandas, Chandawadkar Lane, Nasik City	Weights.
(10)	Mehta Deghani Metal Works, 94, Dhanji Street, Bombay	Weights.
(11)	Mercantile & Industrial Dev. Co. Pte., Ltd., National House, 67, Tulloch Road, Apollo Bunder, Bombay-1.	Measuring Instruments (Petrol Pumps etc.).
(12)	Mohd. Farooq Gallenwalla, Khetwadi, Mehar Bazar, Bombay-4.	Conical Capacity Measures.
(13)	Mohd. Siddik Tinwala, 94, Ripon Road, Ramzan Building, Bombay-11.	Conical Capacity Measures.
(14)	Mulji V. Narsi, Udyognagar, Sion, Bombay-22	Weighing Instruments (Counter Machines).
(15)	Munshi Sufi, 154, Janjekar Street, Bombay-3	Conical Capacity (Litre) Measures.
(16)	National Metal Industries, 15-A, Parel Village Road, Bombay-12.	Weights & Measures.
(17)	Oriental Metal Pressing Works, Private Ltd., 131, Worli, Bombay-18.	Capacity & Linear Measures.
(18)	Pax Tin Works, Haji Kasam Chawl No. 29, Shop No. 11, Small Kazipura, Two Tanks, Bombay-8.	Conical Measures of Capacity.
(19)	Rajabali Abdulhusain Tinwala, 1st Parsiwada, Vithalbhai Patel Road, Bombay-4.	Conical Capacity Measures.
(20)	Ram Mills Ltd., Fergusson Road, Parel, Bombay-13	Weights.
(21)	Steel Industries of Hindustan, P. Ltd, Magazine Street, Darukhana, Bombay-10.	Weights.
(22)	Swastik Iron Works, Ghat Road, Nagpur-2	Weights.
(23)	Vidarbha Engineering Industries, Abhyankar Road, Sitabuldi, Nagpur-1.	Weights.

Dealers

Serial No.	Name and Address of Dealer	Details of Articles Sold
(1)	Abhadin & Sons, 3169, Juna Bazar, Ahmednagar	Weights, Measures and Weighing Instruments.
(2)	Abdul Husain M. Allabuxjee, Loha Oli, Itwari, Nagpur-2	Weights, Measures and Weighing Instruments.
(3)	Abdul Husain Yusufali Bohari, Patod Darwaja, Jeola (Nasik)	Weights, Measures and Weighing Instruments.
(4)	Abdul Rahiman Mohamad Husain Shaikh, 660, Shukrawar Peth, Sholapur.	Weights, Measures and Weighing Instruments.

Dealers (Contd.)

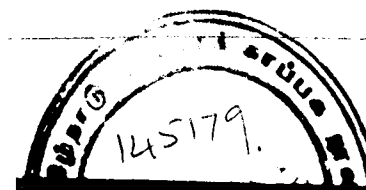
Serial No.	Name and Address of Dealer	Details of Articles Sold
(5)	Abdul Husain Essaji, General Iron & Steel and Hardware Merchant, Tilak Park, Wardha.	Weights, Measures and Weighing Instruments.
(6)	Abdul Husain Gulamali, C.N.4, Near Municipal Garden, Wardha.	Weights, Measures and Weighing Instruments.
(7)	Abdulla Bhai Mulla Ahmedeli Main Road Koamgaon, Distt (10) Buldana	Weights, Measures and Weighing Instruments.
(8)	Abidi Shop, Kampti Road, Nagpur	Weights, Measures and Weighing Instruments.
(9)	Akbarali Abdulali, Tunja Peth, Akola	Weights, Measures and Weighing Instruments.
(10)	Akbarali Kurbanhusain, Hardware Merchants, Sindhkhed (West Khandesh).	Weights, Measures and Weighing Instruments.
(11)	M.A. Akatewala, Itwari Bazar, Amravati	Weights, Measures and Weighing Instruments.
(12)	M.H. Akbarali Alimohomad, Main Road, Yeotmal	Weights, Measures and Weighing Instruments.
(13)	Akhtar Husain & Bros., General Hardware Merchant, Wardha	Weights, Measures and Weighing Instruments.
(14)	T.M. Akolawalla & Bros., Itwari Nazar, Amravati	Weights, Measures and Weighing Instruments.
(15)	Amer Trading Co., 64, Nagdevi St., Bombay-3	Measures only.
(16)	Annexed Agencies (Pvt.) Ltd., Station Road, Amravati	Weights, Measures and Weighing Instruments.
(17)	Asgarali Kadarbhai, Chowk Bazar, Aurangabad	Weights, Measures and Weighing Instruments.
(18)	Asha Iron Beam Scale Repairing Workshop, P. B. No. 13/3550, Sakari Road, Dhulia, (Distt. West Khandesh).	Weights, Measures and Weighing Instruments.
(19)	Asian Steels & Co., Hardware Stores, 1st Floor, Ismail Building, Pathakwadi, Lohar Street, Bombay-2.	Measures.
(20)	Avery Co. of India (Pvt.) Ltd., Homi House, Kingsway, Nagpur-1.	Weights, Measures and Weighing Instruments.
(21)	Baboo Maniram Workshop, Prop. Ramrattan Ramcharan, Mahule, Ram Mandir Road, Yeotmal.	Weights, Measures, Weighing and Measuring Instruments.
(22)	Bajaji General Stores, Main Road, Yeotmal	Weights, Measures, Weighing and Measuring Instruments.
(23)	Baraskar Stationery Mart, 914, Baraskar Bldg. Sangli	Weights, Measures and Weighing Instruments.
(24)	Behore Mullaji Shop, Bhandara Road, Itwari, Nagpur-2	Weights, Measures and Weighing Instruments.
(25)	Bhai Vallabhaji Ravashankar Joshi, Hardware Merchant, Chanda.	Weights, Measures, Weighing and Measuring Instruments.
(26)	Bhujangnath Rao, Chowk, Nanded	Weights, Measures and Weighing Instruments.
(27)	Bhunj Brothers, Koregaon, Distt. N. Satara	Weights, Measures and Weighing Instruments.

Dealers (Contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(28)	G.A. Brother, 176, Kazi Sayed Street, Dhobi Building, Mandvi Koliwada, Bombay-3.	Weights, Measures and Weighing Instruments.
(29)	M.C. Brothers, 11, IIND, Bheiwada Lane, Bhuleshwar, Bombay-2.	Weights, Measures and Weighing Instruments.
(30)	Central Engineering Corporation, Abhyankar Road, Sitabuldi, Nagpur-1.	Weights, Measures and Weighing Instruments.
(31)	T.B. Chakhe, 23/44, Raviwar Peth, Karad	Weights, Measures and Weighing Instruments.
(32)	Chhanganlal Nihalchand Mutha, Baramati, Distt. Poona	Weights, Measures and Weighing Instruments.
(33)	L.M. Choudhari Workshop, 123, Gold Finch Peth, Sholapur	Weights, Measures and Weighing Instruments.
(34)	Chunilal Hiralal Dabi, Laxmi Road, Rajendra Prasad Chowk, Dhond.	Weights, Measures and Weighing Instruments.
(35)	Dagaduram Pirachand, Bonadia, 706, Shivaji Road, Shrirampur.	Weights, Measures and Weighing Instruments.
(36)	Datta Avinash, Loha Bhandar Chowk Bazar, Wani Distt. Yeotmal	Weights, Measures, Weighing and Measuring Instruments.
(37)	Dawoodbhai Shaikh Hasanji Shukrawar Peth, Karamala, Distt. Sholapur.	Weights, Measures and Weighing Instruments.
(38)	Deccan Industrial Corporation, Diggi Mohalla, Station Road, Parbhani.	Weights, Measures and Weighing Instruments.
(39)	R.S. Devane & Company, 4250-A, Somwar Peth, Barsi, District Sholapur	Weights, Measures and Weighing Instruments.
(40)	Devichand Hirachand Shaha, Shroff, Shroff Bazar, Kopargaon.	Weights, Measures and Weighing Instruments.
(41)	Dave Rathi & Co., Main Road, Hinganghat	Weights, Measures and Weighing Instruments.
(42)	Devendra Shantinath Moholkar, Near Post Office, Kurduwadi Distt. Sholapur.	Weights, Measures and Weighing Instruments.
(43)	D.H. Engineering & Co., 84/86, Nagdevi Cross Lane, Bombay-3.	Weights, Measures and Weighing Instruments.
(44)	Fakhruddin Saifuddin & Co., Baramati, Distt. Poona	Weights, Measures and Weighing Instruments.
(45)	Famous Steel Depot, 210, Mayor Bidg., Tulsipipe Road, Dadar (W. Rly.), Bombay-28.	Weights and Measures.
(46)	Fazelhusein Asgarali & Co., 893, Main Road, Pandharpur, Distt. Sholapur.	Weights, Measures and Weighing Instruments.
(47)	Fidahusen M. Gulamali, Corner Main Road, Yeotmal	Weights, Measures and Weighing Instruments.
(48)	Gajanan Agencies, Ward No. 4, Bakri Gin, Sheogaon, Distt. Buldana.	Weights, Measures Weighing and Measuring Instruments.
(49)	Gourhar Soni, Wani, Distt. Yeotmal	Weights, Measures and Weighing Instruments.

Dealers (contd.)

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(73)	Jamnadas Patilal Soni, H.No. 66, Ward No. 19, New Itwari Road, Nagpur-2.	Weights, Measures and Weighing Instruments.
(74)	G.N. Jathar, Gamdevi Road, Sultan Building, Near Telephone Exchange Building, Navpada, Thana.	Weights, Measures and Weighing Instruments.
(75)	Jawanmal Hiralal Gandhi, Bazar Peth, Newasa, Distt. Ahmednagar.	Weights, Measures and Weighing Instruments.
(76)	K.C. Jiwani, Amtobai Blocks, Ghodbunder Road, Opp. Bus Stop, Near Petrol Pump, Bandra.	Weights and Measures.
(77)	Kamtaprasad Nandiprasad, Itwari Loha Oli	Weights, Measures and Weighing Instruments.
(78)	G.A. Kantawala, 254, Ripon Road, Sajan Buldg, Bombay-8 ..	Weights, Measures and Weighing Instruments.
(79)	S.K. Kardak & Co., 138, Vincent Road, Dadar, Bombay-4 ..	Weights, Measures and Weighing Instruments.
(80)	Khansaheb M. Hasonjee & Sons, Itwari, Nagpur-2	Weights, Measures and Weighing Instruments.
(81)	Kharda Hardware Stores, Kharada, Distt. Ahmednagar ..	Weights, Measures and Weighing Instruments.
(82)	Kisan Tormal, Sewkar Peth, Manohar Building, Yeotmal. ..	Weights, Measures and Weighing Instruments.
(83)	Limestones, Boho Oli, Itwari, Nagpur-2	Weights, Measures and Weighing Instruments.
(84)	Laxmichand General Stores, 2762, Ganj Bazar, Ahmednagar	Weights, Measures and Weighing Instruments.
(85)	Lucky Traders, Botawala Bldg., 3rd Floor, Horniman Circle, Bombay,	Weights, Measures and Weighing Instruments.
(86)	Mallikarjunappa Sidramappa Bidve, Latur, Distt. Osmanabad.	Weights, Measures and Weighing Instruments.
(87)	Malikarjun Mahoharkare (Gohdegaonkar), 835, Main Road, Kurmal, Distt. Sholapur.	Weights, Measures and Weighing Instruments.
(88)	Malluram Ramji Lal Mohadia H. No. 592 Cir. 19/17, Main Road, Sitarldi Nagpur-1	Weights, Measures and Weighing Instruments.
(89)	A.M. Maner, House No. 2153, Somwar Peth, Kolhapur ..	Weights, Measures and Weighing Instruments.
(90)	Manikchand Dharmchand Shaha, Mhaswad, Tal. Main, Distt. North Satara.	Weights, Measures and Weighing Instruments.
(91)	Mannalal Babulal, Bagdia, Itwari Bazar, Nagpur-2 ..	Weights, Measures and Weighing Instruments.
(92)	Manohar Metal Works, Gandhi Chowk, Bhandara ..	Weights, Measures and Weighing Instruments.
(93)	Manubhai Mulchand & Co., 26-A, Behind Mumbadevi P.O., Bombay-2.	Weights, Measures and Weighing Instruments.
(94)	Markandey Workshop, 79, Sidheshwar Peth, Shoholapur ..	Weights, Measures and Weighing Instruments.



Dealers (contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(95)	A. B. Maskati, Maskati House, Mohamadali Road, Bombay-3	Weights, Measures and Weighing Instruments.
(96)	D. G. Maste, 24, Main Road, Nasik Road	Weights, Measures and Weighing Instruments.
(97)	A. M. Master and Company, 179/81, Janjekar Street, Bombay-3	Weights, Measures and Weighing Instruments.
(98)	Misrilal Motilal 71, Sarang Street, Bombay-3	Weights, Measures and Weighing Instruments.
(99)	Misrilal Motilal, 256, Ganpat Peth, Sangli	Weights, Measures, Weighing and Measuring Instruments.
(100)	Misrilal Motilal, Chowk, Aurangabad	Weights, Measures, Weighing and Measuring Instruments.
(101)	Modern Foundry & Works Ltd., Station Road, Ahmednagar	Weights, Measures, Weighing and Measuring Instruments.
(102)	Mohandas Tuljiram Mahadwale, 394, Shaniwar Peth, Satara	Weights, Measures and Weighing Instruments.
(103)	Mohanlal Tukaram Shan, At Rahimatpur, Dist. N. Satara	Weights, Measures, Weighing and Measuring Instruments.
(104)	Mohd. Fashiuddin Prop. Abid Scales & Weights Dealers, Huzoorgunj, Degloor, Dist. Nanded.	Weights, Measures, Weighing and Measuring Instruments.
(105)	Mohd Zainulabuddin, S/o Mohd. Shujabddin, Main Road, Osmanabad.	Weights, Measures, Weighing and Measuring Instruments.
(106)	C. B. Mor, Nehru Chowk, Cross Lane, Yeotmal	Weights, Measures and Weighing Instruments.
(107)	Mulla Adamali Mulla Taiyebali, Sitabuldi, Nagpur	Weights, Measures, Weighing and Measuring Instruments.
(108)	Mohamadali Abdulali, Gujar Bazar, Nanurbar (Honesty Khandesh).	Weights, Measures, Weighing and Measuring Instruments.
(109)	Mu. Laxmidas & Co., Shop No. 193, Janjekar Street, Cutlery Bazar, Bombay-3.	Weights, Measures, Weighing and Measuring Instruments.
(110)	National Scale Traders, Janjekar Street, Bombay-3	Weights, Measures, Weighing and Measuring Instruments.
(111)	National Metal Industries, Parel Village Road, Bombay-12	Weights, Measures, Weighing and Measuring Instruments.
(112)	Narsi Rupsi Jain, Mahatma Gandhi Road, Bazar Peth, Chalisgaon, Dist. East Khandesh.	Weights, Measures and Weighing Instruments.
(113)	Nicles Scale and Weight Stall, Opp. Nicles Mandir, Itwari, Nagpur-2.	Weights, Measures and Weighing Instruments.
(114)	F. T. Oliya Kantawala, 12, Khetwadi, Zaveri Building, Bombay-4.	Weights, Measures, Weighing and Measuring Instruments.
(115)	Onkar Bandu Kasar, Jalalpura, Main Road, Khangaon, Dist. Buldahan.	Weights, Measures, Weighing and Measuring Instruments.
(116)	A. R. Patanwala, Hardware Merchant, Itwari Bazar, Amravati	Weights, Measures and Weighing Instruments.

Dealers (contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(117)	Pathak Company, Opp. Empress Mill No. 1, Nagpur	Weights, Measures and Weighing Instruments.
(118)	V. D. Pathak, Dealer in Weights and Measures, Loha Bazar, Latur, Dist. Osmanabad.	Weights, Measures and Weighing Instruments.
(119)	B. T. Patil & Co., 75, Raviwar Peth, Karad, Dist. North Satara	Weights, Measures and Weighing Instruments.
(120)	R. K. Phataty, 260, W. Mangalwar Peth, Sholapur	Weights, Measures and Weighing Instruments.
(121)	Pitru Chhaya, General Mechanical Works, Akalkot, Dist. Sholapur.	Weights, Measures and Weighing Instruments.
(122)	Plynet Traders, Shahru Castle, Bibijan Street, Mohamadali Road, Bombay-3.	Weights, Measures and Weighing Instruments.
(123)	Popatlal Manilal Shah, Bhandara Road, Near Mahavir Bhavan, Itwari, Nagpur-2.	Weights, Measures and Weighing Instruments.
(124)	Prabhuling Sonappa Hundekari, Vani Galli, Kharda, Dist. Ahmednagar.	Weights, Measures and Weighing Instruments.
(125)	Prakash & Co., Navi Peth, Pandharpur, Distt. Sholapur	Weights, Measures and Weighing Instruments.
(126)	Premchand Vijayakumar & Co., Amravati	Weights, Measures and Weighing Instruments.
(127)	Pupchand Zaverchand Soni, House No. 528/3, Ward No. 19, Near Itwari, Nagpur-2.	Weights, Measures and Weighing Instruments.
(128)	N. S. Rajurkar & Sons, Kapad Bazar, Ahmednagar	Weights, Measures and Weighing Instruments.
(129)	Ram Co., 88-90, Yatim Manzil, Dadsaheb Phalke Road, Dadar, Bombay-28.	Weights, Measures and Weighing Instruments.
(130)	Ram Narain & Co., 3/281 Laxmi Sadan, Station Road, Matunga, Bombay-19.	Weights, Measures and Weighing Instruments.
(131)	Ram Samarth Repairing Workshop, Kandajiwadi, Opp. G.P. City High School, Sakri Road, Dhulia (West Khandesh).	Weights, Measures and Weighing Instruments.
(132)	Ramji Devji Katewala, Malipura Chowk, Akola	Weights, Measures and Weighing Instruments.
(133)	Ratanlal P. Vera & Co., Shivapur Peth, Main Road, Akulj, Dist. Sholapur.	Weights, Measures and Weighing Instruments.
(134)	Ratanlal Bansilal Jaiswal, Kali Kurti Road, (Near Shani Mandir), Jalna, Dist. Aurangabad.	Weights, Measures and Weighing Instruments.
(135)	Ravji Ramchandra & Co., 35/39, Surat Street, Dana Bunder, Bombay-9.	Weights, Measures and Weighing Instruments.
(136)	Shahard Shah, 185, Nagdevi Street, Bombay-3	Weights, Measures and Weighing Instruments.
(137)	Shah Mehta & Co., Masjid Siding Road, Opp. Princess Dock, Near Taxi Stand, Bombay-9.	Weights, Measures and Weighing Instruments.
(138)	Shah Chapsi Manshi, General Merchants & Commission Agents, Bazar Ward. Digras, Distt. Yeotmal.	Weights, Measures and Weighing Instruments.

Dealers (contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(139)	Satyaniketan Rajur, Distt. Ahmednagar	Weights, Measures and Weighing Instruments.
(140)	P. K. Shaikh, 5, Malhar Peth, Satara, Distt. North Satara.	Weights, Measures and Weighing Instruments.
(141)	Shaikh Brothers, 120, Mody Street, 4th Floor, Fort, Bombay.	Weighing Instruments.
(142)	Shaikh Fida Ali Sultan Ali, General Hardware Merchant, Itwari, Nagpur-2.	Weights, Measures and Weighing Instrument.
(143)	Shankar General Stores, Mahatma Gandhi Road, Ekorward, Chanda.	Weights, Measures and Weighing Instruments.
(144)	Shankar Pundlik Lohar, Akulj, Distt. Sholapur.	Weights, Measures and Weighing Instruments.
(145)	Shantilal Mathuradas, Inside Jawahar Gate, Amravati.	Weights, Measures and Weighing Instruments.
(146)	Sharafali Alimohamed, Main Road, Yeotmal.	Weights, Measures and Weighing Instruments.
(147)	Shashikant & Co., 350, Bazar Peth, Rahimatpur, Distt. North Satara.	Weights, Measures and Weighing Instruments.
(148)	Y. D. Shinde, C/o 276, Shukrawar Peth, Phaltan, Distt. North Satara.	Weights, Measures and Weighing Instruments.
(149)	R. D. Sinhal & Sons, Arms Dealers & Stationery, Wardha.	Weights, Measures and Weighing Instruments.
(150)	Steel Industries of Hindustan Private Ltd., Magazine Street, Darukhana, Bombay-10.	Weights.
(151)	Umashankar Gurupadappa Karangge, Loha Bazar, Latur, Distt. Osmanabad.	Weights, Measures and Weighing Instruments.
(152)	D. Umedlal & Co., 28-29, Kansara Chawl, Bombay-2	Weights, Measures and Weighing Instruments.
(153)	V. B. Undale, Batsi, 3891, Laxmi Road, Lone Bldg., Barsi, Distt. Sholapur (BARS).	Weights, Measures and Weighing Instruments.
(154)	United Hardware Mart, 1444, Agra Road, Dhulia (West Khandesh).	Weights, Measures and Weighing Instruments.
(155)	D. L. Vaid, 202, Cutlery Bazar, Bombay-3	Weights, Measures and Weighing Instruments.
(156)	Vakharia & Sons, 151, Girgaum Road, Opp. Majestic Cinema, Bombay-4.	Weights, Measures, Weighing and Measuring Instruments.
(157)	S. Vanchand & Co., 54, Kansara Chawl, Kalbadevi Road, Opp. Mumbadevi Post Office, Bombay-2.	Weights, Measures and Weighing Instruments.
(158)	Vidarbha Engineering Industries, 31, Great Nag Road, Nagpur-2.	Weights, Measures and Weighing Instruments.
(159)	Vijay Book Depot, General Merchants, Main Road, Chhota Bazar, Bhandara.	Weights, Measures, Weighing and Measuring Instruments.
(160)	Vijay Stores, Station Road, Yeotmal	Weights, Measures and Weighing Instruments.
(161)	Yadev Rambhan Halge, Sadar Bazar, Hingoli, Distt. Parbhani	Weights, Measures and Weighing Instruments.
(162)	Yevankar Iron Factory, 3298, Bhande Galli, Barsi	Weights, Measures and Weighing Instruments.

Repairers

Sl. No.	Name and Address of Repairer	Details of Articles Repaired
(1)	Abdul Rehman Vajeerkhan, Opp. Vyapari Mashid, House No. 7107-A, Ahmednagar.	Weights, Measures and Weighing Instruments.
(2)	Arkay Traders No. 5, Gustad Chambers, Jail Road (North), Opp. J. J. Hospital Gate No. 6, Bombay-9.	Weights, Measures and Weighing Instruments.
(3)	Asha Iron Beam Scale Repairing Workshop, H. No. 13/3550, Sakri Road, Dhulia (Distt. West I handesh).	Weights, Measures and Weighing Instruments.
(4)	Avery Co. of India (Private Ltd.), 16, Dougall Road, Ballard Estate, Bombay-1.	Weights, Measures and Weighing Instruments.
(5)	Asia Engineering Corporation No. 4, Gustad Chambers, Jail Road (North), Opp. J. J. Hospital Gate No. 6, Bombay-9.	Weights, Measures and Weighing Instruments.
(6)	Azad Hind Furniture Works & Merchants, 132, Murarji Peth, Saraswati Chowk, Hatch Road, Sholapur.	Weights, Measures and Weighing Instruments.
(7)	Baboo Maniram Workshop, Ram Mandir Road, Yeotmal	Weights, Measures and Weighing Instruments.
(8)	Baboorao Balasaheb Korde, 36, Panta's Got. Satara City	Weights, Measures and Weighing Instruments.
(9)	B. A. & Brothers, 2nd Bhoiwada Lane, 176, Kazi Syed Street, Dhoble Building, Mandvi-Koliwada, Bombay.	Weights, Measures and Weighing Instruments.
(10)	B. A. & Brothers, 175, Kazi Syed Street, Dhoble Building, Mandvi Kolwada, Bombay-3.	Weights, Measures and Weighing Instruments.
(11)	M. C. Brothers, 2nd Bhoiwada Lane, Bhuleshwar, Bombay-2.	Weights, Measures and Weighing Instruments.
(12)	Bhai Parmeshwardin Baldeo Prasad Gupta, Hansapuri, Nagpur-2.	Weights, Measures and Weighing Instruments.
(13)	Bhikoba Dagdeoba Jagtap, 842, Shukarwar Peth, Poona-2.	Weights, Measures and Weighing Instruments.
(14)	Bhujannath Rao, Repairer, Weights & Measures, Chowk, Nanded.	Weights, Measures and Weighing Instruments.
(15)	Bombay Scale Repairing Works, Raja Building, Shop No. 1., Kazi Syed Street, Bombay-3.	Weights, Measures and Weighing Instruments.
(16)	L. M. Choudhari Workshop, Sholapur	Weights, Measures and Weighing Instruments.
(17)	D. M. Chowdhari, Ahmednagar	Weights, Measures and Weighing Instruments.
(18)	D. E. Cycle Mart & Mechanical Repairs Shop, Khanderao Road, Shirpur (West Khandesh).	Weights, Measures and Weighing Instruments.
(19)	Deccan Industrial Corporation, Station Road, Parbhani	Weights, Measures and Weighing Instruments.
(20)	S. D. Mello, Kasamali Khatri Chawl, Gokuldas Pasta Road, Bombay-14.	Weights, Measures and Weighing Instruments.
(21)	Ghisa Bahadur Lohar, Sham Mandir Road, Yeotmal	Weights, Measures and Weighing Instruments.
(22)	B. R. Herman Mohatta (India) Pvt. Ltd., People's Building, Sir P. M. Road, Fort, Bombay-1.	Weights, Measures and Weighing Instruments.

Repairers (contd.)

Sl. No.	Name and Address of Repairer	Details of Articles Repaired
(23)	Ideal Cottage Industries, Daruwala Chawl, Joshi Bhuvan, Property, Bazar Ward, Kurla, Bombay-70.	Weights, Measures and Weighing Instruments.
(24)	Indo-Aryan Traders, 71, Ripon Road Kurla, Bombay-70	Weights, Measures and Weighing Instruments.
(25)	Jalna Industries Pvt. Ltd., Station Road, Jalna, Distt. Aurangabad.	Weights, Measures and Weighing Instruments.
(26)	D. N. Jathar, Gamdevi Road, Sultan Building, Near Telephone Exchange Office, Navpada, Thana.	Weights, Measures, Weighing and Measuring Instruments.
(27)	K. C. Jivani, Amtoohai Blocks, Ghodbunder Road, Opp. Bus Stop, Near Petrol Pump, Bandra Bombay.	Weights, Measures and Weighing Instruments.
(28)	S. K. Kardak & Co., 138, Vincent Road, Bombay-14	Weights, Measures and Weighing Instruments.
(29)	A. A. Kantawalla, Dhobi Galli, Mohamadi House, Bombay-3	Weights, Measures and Weighing Instruments.
(30)	G. A. Kantawala, 254, Ripon Road, Sujan Building, Bombay-4	Weights, Measures and Weighing Instruments.
(31)	H. R. Khan (Chopdekar), Repairing Workshop, Karvand Road, Shirpur, (Distt. West Khandesh).	Weights, Measures and Weighing Instruments.
(32)	S. H. Kantawala, 203-A, Bazar Ward, Kurla, Bombay-70	Weights, Measures and Weighing Instruments.
(33)	Khanbhai Hiptullabhai Amreliwala, Subhash Chowk, Jalgaon.	Weights, Measures and Weighing Instruments.
(34)	A. M. Maner, Kolhapur, 2153, 'C', Somwar Peth, Kolhapur	Weights, Measures and Weighing Instruments.
(35)	Mohamadali & Brothers, H. No. 384, Cir. No. B/19, Ward No. 25, Nagpur-2.	Weights, Measures and Weighing Instruments.
(36)	Misrilal Motilal, 256, Ganpati Peth, Sangli	Weights, Measures and Weighing Instruments.
(37)	Misrilal Motilal, Chowk, Aurangabad	Weights, Measures and Weighing Instruments.
(38)	New Bharat Engineering Corporation, Industrial Area, Nag Road, Nagpur-2.	Weights, Measures and Weighing Instruments.
(39)	F. T. Oliya, Khandawala, 12th Khetwadi Zaveri Building, Bombay-4.	Weights, Measures and Weighing Instruments.
(40)	Mistry Ramji Deoji Katewala, Malipura, Chowk, Akola	Weights, Measures, Weighing and Measuring Instruments.
(41)	B. P. Patil & Co., 75, Raviwar Peth, Karad	Weights, Measures and Weighing Instruments.
(42)	E. B. Patil, Scales Repairing Workshop, Near Weekly Bazar Jitha Peth, Jalgaon, Dist. East Khandesh.	Weights, Measures and Weighing Instruments.
(43)	R. K. Phatak, 260, Mangalwar Peth (West), Sholapur	Weights, Measures and Weighing Instruments.
(44)	Popatlal Manilal Shah, Bhandara Bhandar Road, Near Mahavir Bhuvan, Itwari, Nagpur-2.	Weights, Measures and Weighing Instruments.

Repairers (contd.)

Sl. No.	Name and Address of Repairer	Details of Articles Repaired
(45)	Pratipal Sampattal, Prop. Vijay Repairing Works, Loha Bazar, Pandit Nehru Road, Jalna, Distt. Aurangabad.	Weights, Measures and Weighing Instruments.
(46)	Ram & Co., 88/90, Yateem Manzil, Dadasaheb Phalke Road, Dadar, Bombay-14.	Weights, Measures and Weighing Instruments.
(47)	Ram Samarth Workshop, Kondajiwadi, Opp. J. R. City High School, Sakri Road, Dhulia (Distt. West Khandesh).	Weights, Measures and Weighing Instruments.
(48)	Ramesh & Co., 5th B. New Mill Road, Kurla, Opp. New Model Talkies, Bombay-70.	Weights, Measures and Weighing Instruments.
(49)	G. N. Ranadive, 36, Panta's Got. Satara City	Weights, Measures and Weighing Instruments.
(50)	Saran & Company, Liberty Building, Sadar, Nagpur	Weights, Measures and Weighing Instruments.
(51)	P. K. Shaikh, 5, Malhar Peth, Satara City	Weights, Measures and Weighing Instruments.
(52)	Y. D. Shinde, 276, Shukrawar Peth, Phaltan	Weights, Measures and Weighing Instruments.
(53)	V. V. Sonar, Ahmednagar	Weights, Measures and Weighing Instruments.
(54)	G. S. Sutar, Repairer of Weights & Measures, Near Punjab National Bank, Station Road, Jalgaon, Dist. East Khandesh.	Weights, Measures and Weighing Instruments.
(55)	Swastik Iron Works, Ghat Road, Nagpur-2	Weights, Measures and Weighing Instruments.
(56)	Sapie's Scales Mfg. Co., Pvt. Ltd., 180-B, Gaiwadi, Girgaum, Bombay-4.	Weights, Measures, Weighing and Measuring Instruments.
(57)	D. L. Vaid, 202, Cutlery Bazar, Bombay-3	Weights, Measures and Weighing Instruments.
(58)	Vikar Co., 1587, Shukrawar Peth, Poona	Weights, Measures and Weighing Instruments.
(59)	Vithal Janardan Kamble, Moliwala, Sangamner	Weights, Measures and Weighing Instruments.
(60)	Wamanrao S/o Sitaramji Kotle, Kotle Engineering Workshop, Waigaon Road, Wardha.	Weights, Measures and Weighing Instruments.

MYSORE (3)

In the March and May 1960 issues of *Metric Measures* lists of licensed manufacturers, dealers and repairers of weights and measures in Mysore State were published. The following is a list of licensed manufacturers, dealers and repairers subsequently licensed by the Government of Mysore under the Mysore Weights and Measures (Enforcement) Act, 1958.

Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Agarwal Iron Works, Motilal Nehru Road, Agra	Cast Iron Weights.
(2)	Asiatic Machinery, Corporation (P) Ltd., Howrah	Weighing Instruments.

Manufacturers (contd.)

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(3)	Bihar Agricultural Industries, Khagaul, Patna	Weights.
(4)	Decan Porcelain and Enamel Works, Hyderabad	Weights and Measures.
(5)	Dist. Co-operative Federation Ltd., Meerut	Weights.
(6)	Gulab Chand Chottery Lal, Agra	Weights.
(7)	India Iron Foundry, Agra	Weights.
(8)	Jivan Nagji & Sons, River Bank, Sauarkundla, (Saurashtra)	Weighing Instruments.
(9)	Krishna Iron Foundry, Agra	Weights.
(10)	Kasi Iron Foundry, Free Ganj, Agra	Weights.
(11)	Luhar Jiva Gopal & Co., Amratwel Gate Savar Kundla, (Saurashtra).	Beam Scales.
(12)	Luhar Karsan Ramji & Sons, Scale Factory, Popal Bogha Street, Savarkundla.	Weighing Instruments.
(13)	Majestic Metal Works, Mittika Sher, Begum Bazar, Hyderabad A.P.	Litre Measures.
(14)	Mallomal Rampershad Iron Foundry, Belnganj, Agra ..	Metric Weights of Cast Iron and Brass.
(15)	Multan Enginering Works, Mirjumala, Lakkhan, Delhi—6.	Brass and Bullion Weights Conical Capacity Measures.
(16)	K. Narayana & Sons, Dowlaisram	Weighing Instruments.
(17)	National Iron Foundry, Motilal Nehru Road, Agra ..	Weights.
(18)	National Iron Industries, No. 9, Motinagar, Bangalore-2 ..	Litre Measures (Conical).
(19)	National Moulding Factory, 1-4-741, Masheerabad Road, Near Badi Masjeed, Hyderabad-20 A. P.	Weights.
(20)	Pioneer Engineering and Trading Corporation, No. 21, B. Mahathma Gandhi Road, Bangalore-1.	Litre Measures (Conical).
(21)	Prabhat Iron Foundry, Free Ganj, Agra	Weights.
(22)	Prakash Engineering Co., and Rolling Mills, Agra ..	Weights.
(23)	Ram Krishna Iron Foundry, Sultan Ganj, Agra	Weights.
(24)	Seshta Ram Engineering Works (Regd.) Dowlaishwaram, East Godavari.	Beam Scales.
(25)	Standard Mechanical and Iron Works, Bombay.	Weights, Measures, Weighing and Measuring Instruments.
(26)	Standard Steel & Iron Foundry, Agra	Weights.
(27)	Swamy Engineering Works, High Class Beam Scales Manufacturers, Dowlaishwaram, Rajahmundry B. S., East Godavari Dist.	Weighing Instruments.
(28)	Watan Weight Works, Machli Kaman Mulgi No. 22-6-113, Hyderabad, A. P.	Weights.

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	H. G. Anandaraja Setty, Doddapet, Tiptur	Weights, Measures, Weighing and Measuring Instruments.

Dealers (Contd.)

Serial No.	Name and Address of Dealer	Details of Articles Sold
(2)	Amarappa Angadi, Koppal	Weights, Measures, Weighing and Measuring Instruments.
(3)	Asgar Hussain, Manager, Mandya Rice Mills, Mandya ..	Weights, Measures, Weighing and Measuring Instruments.
(4)	Ashok Hardware Agencies, Maratha Galli, Hubli	Weights, Measures, Weighing and Measuring Instruments.
(5)	Agricultural Produce Market Committee, Challakere (Chitradurga Dist).	Weights, Measures, Weighing and Measuring Instruments.
(6)	Alijan, V. R. C. Market, Kumbharpet, Bangalore City ..	Weights, Measures, Weighing and Measuring Instruments.
(7)	V. G. Anvekar, Shroff Station Road, Gadag	Weights, Measures, Weighing and Measuring Instruments.
(8)	Airodi Radha Krishan Pai, Merchant, Car Street, Udipi (South Kanara).	Weights, Measures, Weighing and Measuring Instruments.
(9)	Attur Vasudevaprabhu, Hardware Merchant, Bunder, Mangalore.	Weights, Measures, Weighing and Measuring Instruments.
(10)	Abdur Rahim, Mohammed Yakub, Hardware Merchants, Raichur.	Weights, Measures, Weighing and Measuring Instruments.
(11)	Balaji Trading Company, Prof. G.T. Gopalan, No. 2 V Cross Road, Shankarpur, Bangalore-4.	Weights, Measures, Weighing and Measuring Instruments.
(12)	Bappanada, Hospet House, Bappanada Mulky, Post Mulky, Nallikai Road, Mangalore-1.	Weights, Measures, Weighing and Measuring Instruments.
(13)	Bapu Rao Pannalkar, Prof. Jai-Hind Flour Mills, No. 558 Theobald Road, Nazerabad, Mysore.	Weights, Measures, Weighing and Measuring Instruments.
(14)	Bhaskar Trading Agency, Hardware and General Merchant, Avenue Road, Cross, 4-Kumbharpet, Bangalore City.	Weights, Measures, Weighing and Measuring Instruments.
(15)	Bhavani Iron Works and Hardware Dealers, Market Road, Dharwar.	Weights, Measures, Weighing and Measuring Instruments.
(16)	C. B. Balulmath, Hardware Merchant, Bagalkot, Bijapur Dist.	Weights, Measures, Weighing and Measuring Instruments.
(17)	Babani Govind Bhat, Damodar Book Depot, Recognised Book Sellers, Kumta, North Kanara.	Weights, Measures, Weighing and Measuring Instruments.
(18)	H. Budan Baig, No. C. 1. III Main Road, Potato Merchant, New Taragpet, Bangalore-2.	Weights, Measures, Weighing and Measuring Instruments.
(19)	Basweshwar Repairing & Dealing Workshop, Jamkhandi.	Weights, Measures, Weighing and Measuring Instruments.
(20)	Bhagwan Stores, Prop. J. B. Soni, Jain Road, Jamkhandi	Weights, Measures, Weighing and Measuring Instruments.
(21)	Bhimasenappa and Bros., Harpanahalli, Davangere City	Weights, Measures, Weighing and Measuring Instruments.
(22)	A. B. Contractor, Hardware Merchant, Bagalkot (Dist. Bijapur).	Weights, Measures, Weighing and Measuring Instruments.

Dealers (Contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(23)	Challakere Taluk Agricultural Produce Co-operative Marketing Society Ltd., Challakere.	Weights, Measures, Weighing and Measuring Instruments.
(24)	Chitradurga Taluk Co-operative Marketing Society Ltd., Chitradurga.	Weights, Measures, Weighing and Measuring Instruments.
(25)	N. S. Channabasappa Banappa, Hardware Merchant, Challakere (Chitradurga Dist).	Weights, Measures, Weighing and Measuring Instruments.
(26)	Cheapest Hardware Stores, V.R.G. Market, Avenue Road, Cross, Bangalore-2.	Weights, Measures, Weighing and Measuring Instruments.
(27)	Chau Shetty Brothers, Merchants, Haveri	Weights, Measures, Weighing and Measuring Instruments.
(28)	Chauamari & Co., Hardware Merchants, Raviwarpeth, Gokak	Weights, Measures, Weighing and Measuring Instruments.
(29)	A. Chause Mohadin & Sons, Iron Merchant Ghousia Buildings, Madhugiri.	Weights, Measures, Weighing and Measuring Instruments.
(30)	Chintamani Ishvarappa, Sonnad, Saundathi, Belgaum ..	Weights, Measures, Weighing and Measuring Instruments.
(31)	N. Y. Dhogdi, Gandhi Market, Hubli	Weights, Measures, Weighing and Measuring Instruments.
(32)	Y. Dassanna, Iron Merchant, Chintamani	Weights, Measures, Weighing and Measuring Instruments.
(33)	Davangere Agricultural Produce Market Committee, Davangere City.	Weights, Measures, Weighing and Measuring Instruments.
(34)	A. J. Danasetti & Company India (Bijapur Dist.) ..	Weights, Measures, Weighing and Measuring Instruments.
(35)	B. Dashrathappa, Hardware and General Merchant, Station Road, Davangere City.	Weights, Measures, Weighing and Measuring Instruments.
(36)	R.G. Deogiri & Sons, Iron and Hardware Merchants, Bijapur.	Weights, Measures, Weighing and Measuring Instruments.
(37)	Damodar Stores, General Merchants, B.H. Road, Sagar ..	Weights, Measures, Weighing and Measuring Instruments.
(38)	K. P. Gadgimath, Iron Merchants, Davangere	Weights, Measures, Weighing and Measuring Instruments.
(39)	A. A. Golewale, Nehru Road, Bijapur	Weights, Measures, Weighing and Measuring Instruments.
(40)	S. N. Gaur & Company, Cottonpet, Bangalore-2	Weights, Measures, Weighing and Measuring Instruments.
(41)	S. S. Hiremath, Stationery Shop, A. O. 2 P.O. Sindgi Dist., Bijapur.	Weights, Measures, Weighing and Measuring Instruments.
(42)	B. S. Honagudi, Namjoshi Road, Gadag	Weights, Measures, Weighing and Measuring Instruments.
(43)	Ishwarappa Hanumanthappa Kombali, Hardware and Commission Agent, Mundargi.	Weights, Measures, Weighing and Measuring Instruments.
(44)	Janath Stores, Baikampady, South Kanara	Weights, Measures, Weighing and Measuring Instruments.

Dealers (Contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(45)	Janadri Venkanna Setty & Sons, Hospet	Weights, Measures, Weighing and Measuring Instruments.
(46)	Krishna Hardware Merchant, Puttur, South Kanara ..	Weights, Measures, Weighing and Measuring Instruments.
(47)	M.A. Krishna Nayak & Sons, Sri Krishna Buildings, P.O. Box No. 47, Bunder, Mangalore.	Weights, Measures, Weighing and Measuring Instruments.
(48)	S. M. Khodanpur, Hattikalsal, Hubli	Weights, Measures, Weighing and Measuring Instruments.
(49)	Krishna Surya Prakash, Kirana Merchant, Yadgir, Gulbarga District.	Weights, Measures, Weighing and Measuring Instruments.
(50)	Kunigal Taluk Agricultural Produce Co-operative Marketing Society, Kunigal.	Weights, Measures, Weighing and Measuring Instruments.
(51)	Kasi Radakrishna Setty & Sons, Hardware Merchants, Santhepet, Chitradurga.	Weights, Measures, Weighing and Measuring Instruments.
(52)	R.G. Kaplaganti, Stationery and Book Sellers Shop, Mahalingapur, Mudhol (Taluk).	Weights, Measures, Weighing and Measuring Instruments.
(53)	Kemchand Narayan Das, Hardware & Paints Merchant, 200 Avenue Road, Bangalore-2.	Weights, Measures, Weighing and Measuring Instruments.
(54)	S. G. Kotur, General Merchant, 68 Nehru Market, Dharwar	Weights, Measures, Weighing and Measuring Instruments.
(55)	Kamath & Company, Kalsank Udipi, South Kanara ..	Weights, Measures, Weighing and Measuring Instruments.
(56)	S. Khader Baig Sahib Son, General Hardware Merchants, 191, Avenue Road, Bangalore City.	Weights, Measures, Weighing and Measuring Instruments.
(57)	Kudukunji Narayan Pai, Market Road, Bangalore	Weights, Measures, Weighing and Measuring Instruments.
(58)	M. R. Katti & Bros., Iron Merchants, Bijapur (S. Rly.) ..	Weights, Measures, Weighing and Measuring Instruments.
(59)	G. C. Kumarnata Deshapande Chawl, Fort, Dharwar ..	Weights, Measures, Weighing and Measuring Instruments.
(60)	G. S. Laxmeshwar, Hattikalsal, Hubli	Weights, Measures, Weighing and Measuring Instruments.
(61)	Lakshmidas Chapsey, Takkar Hattikalsal, Hubli	Weights, Measures, Weighing and Measuring Instruments.
(62)	Laxmi General and Hardware Stores, Vijaya Road, Dharwar	Weights, Measures, Weighing and Measuring Instruments.
(63)	Laxmi Repairing and Dealing Workshop, Prop. M. T. Kulkarni, Mirday Galli, Bijapur.	Weights, Measures, Weighing and Measuring Instruments.
(64)	Mirza Nabi Beig, S/o Late Madar Beig, Gomdhi Chowk, Hospet.	Weights, Measures, Weighing and Measuring Instruments.
(65)	Modern Repairing Work, Prop. P. H. Naik, Sunkdvar Oni, Ranibenur.	Weights, Measures, Weighing and Measuring Instruments.
(66)	M. Mahamed Usman, Door No. 1984, Adama Khan Street, K. R. Mahalla, Mysore.	Weights, Measures, Weighing and Measuring Instruments.

Dealers (Contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(67)	Model Rice Mills, Old M. C. Road, Kallahally Extension, Mandya.	Weights, Measures, Weighing and Measuring Instruments.
(68)	N. Maheshwarappa & Co., Merchants, Mandipet, Davangere City.	Weights, Measures, Weighing and Measuring Instruments.
(69)	B. Mohamed Hayath Saheb & Sons, Hardware Merchants, Sagar.	Weights, Measures, Weighing and Measuring Instruments.
(70)	Mayanna, 622 Ashoka Road, Mysore	Weights, Measures, Weighing and Measuring Instruments.
(71)	A. A. Maniyar, Dealer in Weights and Measures, Raviwarpeth, Belgaum.	Weights, Measures, Weighing and Measuring Instruments.
(72)	Madhugiri Co-operative Society, Ltd., Madugir, Tumkur (Dist.).	Weights, Measures, Weighing and Measuring Instruments.
(73)	Mahabub Saheb Meerasaheb, Nargagal, Hardware & Iron Merchant, Ilkal (Bijapur Dist.).	Weights, Measures, Weighing and Measuring Instruments.
(74)	Mysore Weights Association, C/o Machinery and Foundry Works (P) Ltd., Tumkur Road, Yeshwantpur, Bangalore-22.	Weights, Measures, Weighing and Measuring Instruments.
(75)	Mangalore Hardware Stores, Market Road, Mangalore (South Kanara).	Weights, Measures, Weighing and Measuring Instruments.
(76)	Mathi Kotrabasappa, Merchants & Commission Agent, Chamarajpet, Davangere City.	Weights, Measures, Weighing and Measuring Instruments.
(77)	T. M. Mahantaiah, Commission Agent, Main Road, Hospet, Bellary District.	Weights, Measures, Weighing and Measuring Instruments.
(78)	M. D. Mulla, No. 2625, Tatagar Galli, Gokak, Belgaum District.	Weights, Measures, Weighing and Measuring Instruments.
(79)	National Hardware Stores, Bazar Street, Mandya	Weights, Measures, Weighing and Measuring Instruments.
(80)	Narayana Industries, V.V. Mahalla, Adipampa Road, Mysore	Weights, Measures, Weighing and Measuring Instruments.
(81)	K. B. Naikwadi & Bros., Subhas Road, Dharwar	Weights, Measures, Weighing and Measuring Instruments.
(82)	Nanjundappa Ramaiah & Sons, General Merchants, Gandhi Bazar, Shimoga.	Weights, Measures, Weighing and Measuring Instruments.
(83)	Patcha Niyan Sahib Company, 197, Avenue Road, Bangalore	Weights, Measures, Weighing and Measuring Instruments.
(84)	Panchayat Book House, Market Road, Dharwar	Weights, Measures, Weighing and Measuring Instruments.
(85)	Puttaiah Setty & Sons, Merchants & Burmah Shell Dealer, Somwarpet, N. Coorg.	Weights, Measures, Weighing and Measuring Instruments.
(86)	Peoples Hardware Stores, Bazar Street, Mandya	Weights, Measures, Weighing and Measuring Instruments.
(87)	Prasanna Rudra, Merchant, Magadi, Bangalore District	Weights, Measures, Weighing and Measuring Instruments.
(88)	D. Y. Puttanna Sons & Co., Metal Merchants, Santepet, Tumkur.	Weights, Measures, Weighing and Measuring Instruments.

Dealers (contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(89)	Parappa Aminappa Chittargi, Honogund, Bijapur District	Weights, Measures, Weighing and Measuring Instruments.
(90)	Peter Pai's Metal Hardware Merchants, Coondopur, South Kanara.	Weights, Measures, Weighing and Measuring Instruments.
(91)	Pioneer Engineering & Trading Corporation, No. 21 B, Mahatma Gandhi Road, Bangalore.	Weights, Measures, Weighing and Measuring Instruments.
(92)	G. V. Rajashekar, M/S Vinoda Talies, Tumkur	Weights, Measures, Weighing and Measuring Instruments.
(93)	Rajah Lakshminarayan Setty and Sons, Hardware & General Merchants, Bangarpet.	Weights, Measures, Weighing and Measuring Instruments.
(94)	H. R. Rangaswamy, C/o B. Garudachar & Sons, Santhepet, Chitaldrug.	Weights, Measures, Weighing and Measuring Instruments.
(95)	Rattachathi-Seenappa & Sons, General Hardware Merchants, Sagar.	Weights, Measures, Weighing and Measuring Instruments.
(96)	G.C. Rudrakashi & Sons, Stationery Hardware Merchants, Gandhi Road, Bagalokot.	Weights, Measures, Weighing and Measuring Instruments.
(97)	K. Ramakrishna Gundu Nayak & Sons, General Merchants, Car Street, Udipi, S.K.	Weights, Measures, Weighing and Measuring Instruments.
(98)	D. N. Ramaswamy, Silk Merchant, Darga Mohalla, Dodaballapur, Bangalore Dist.	Weights, Measures, Weighing and Measuring Instruments.
(99)	P. K. Rugi, Hardware Merchants, Bijapur	Weights, Measures, Weighing and Measuring Instruments.
(100)	Ram Rao, Mohan Rao Ubale, Holikatta, Chittapur, Gulbarga District.	Weights, Measures, Weighing and Measuring Instruments.
(101)	Ramanagarram-Trading Co., Taluk Office Road, Ramana-garam, Bangalore District.	Weights, Measures, Weighing and Measuring Instruments.
(102)	Shivakumar & Co., Adagomahalli, Maddur Taluk, Mandya District, Mandya.	Weights, Measures, Weighing and Measuring Instruments.
(103)	T. R. Siddabasappa & Sons, General Merchants & Agent, Tiptur.	Weights, Measures, Weighing and Measuring Instruments.
(104)	Swastic Stores, Prop: M. L. Satyanarayana Setty and M. L. Adinarayana Setty, Hardware and Paint Dealer, Chan-napatna.	Weights, Measures, Weighing and Measuring Instruments.
(105)	V. R. Srinivas Setty, Prop: M/S Ranganath Metal Stores, Mercara (Coorg).	Weights, Measures, Weighing and Measuring Instruments.
(106)	R. G. Shamanna & Bros. 2359/29.A. Sehineerkatte Street, Manufacturer Representatives, K. R. Mohalla, Mysore.	Weights, Measures, Weighing and Measuring Instruments.
(107)	Syed Mahmood & Sons, 6/10 Richards Square, Bangalore-1	Weights, Measures, Weighing and Measuring Instruments.
(108)	Sidramappa Shivappa, Gondabal, Koppal	Weights, Measures, Weighing and Measuring Instruments.
(109)	S. N. Somashekaraiah Singdi, Merchant and Commission Agent, Tumkur.	Weights, Measures, Weighing and Measuring Instruments.
(110)	Sakuntala Stores & Coffee Works, Prop: Gopal Krishna Guptha, General Merchants, Kunigal.	Weights, Measures, Weighing and Measuring Instruments.

Dealers (contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(111)	Subramanya Setty & Sons, General Merchants, Main Bazar, Post Box No. 1, Hospet.	Weights, Measures, Weighing and Measuring Instruments.
(112)	M. V. Sakri, Hardware & General Merchants, Bagalkot, Bijapur District.	Weights, Measures, Weighing and Measuring Instruments.
(113)	S. J. & Company, H. 121 Yerrappa Block, Srirampur, Bangalore-21.	Weights, Measures, Weighing and Measuring Instruments.
(114)	Shivakaran Murlidhar Malpani, E. T. S. No. 587 Ward No. 7, Bagalkot (Bijapur District)	Weights, Measures, Weighing and Measuring Instruments.
(115)	S. P. Sangappa, Stationery and General Merchant, Sargur, H.D. Kote, Taluk.	Weights, Measures, Weighing and Measuring Instruments.
(116)	Shivappa Shastri & Bros., Merchants, Shikarpur, Shimoga District.	Weights, Measures, Weighing and Measuring Instruments.
(117)	C. A. Savgaon, Hardware Merchant, Raviwarpeth, Gokak	Weights, Measures, Weighing and Measuring Instruments.
(118)	Sabjan Stores, General & Hardware Merchants, Bhadravati, Mysore State.	Weights, Measures, Weighing and Measuring Instruments.
(119)	Siddabasavaiah, General Stores, Turuvekere	Weights, Measures, Weighing and Measuring Instruments.
(120)	S. G. Tavargiri, Hardware Merchant, Bijapur (S. Rly.) ..	Weights, Measures, Weighing and Measuring Instruments.
(121)	Taluk Agriculture Produce Cooperative Market Society, Shorapur, Shorapur Taluk, (Gulbarga District).	Weights, Measures, Weighing and Measuring Instruments.
(122)	Vithappa Yankappa Panganti, P.O. Bhagiyanagar, Koppal Taluk, Raichur District.	Weights, Measures, Weighing and Measuring Instruments.
(123)	Vithal Yeshwant Gowda, 791, Raviwar, Belgaum	Weights, Measures, Weighing and Measuring Instruments.
(124)	B. Veerannaiah & Sons, Burmah Shell, Dealer, M. G. Road, Chikmangalore.	Weights, Measures, Weighing and Measuring Instruments.
(125)	M. Venkataraja Nayak & Co., Hardware, Brass Ware Merchants, Galikatta Bazaar, Bunder, Mangalore-1	Weights, Measures, Weighing and Measuring Instruments.
(126)	D. B. Vibhuti, Mathapati, Galli, Bijapur	Weights, Measures, Weighing and Measuring Instruments.
(127)	Vishandas & Sons, 167, Avenue Road, Bangalore	Weights, Measures, Weighing and Measuring Instruments.

Repairers

Sl. No.	Name and Address of the Repairer	Details of Articles Repaired
(1)	Avery Company of India (P) Ltd., No. 1, Narasimharaja Road, Bangalore-2.	Weights, Measures, Weighing and Measuring Instruments.
(2)	Burmah Shell Oil Distributing Co., Ltd., 11 Elpinstone Road, Post Box No. 61, Poona.	Weights, Measures, Weighing and Measuring Instruments.

Repairers (contd.)

Sl. No.	Name and Address of Repairer	Details of Articles repaired
(3)	Bopanad, Weights and Measures Repairing Workshop, Nellikai Road, Mangalore-1.	Weights, Measures, Weighing and Measuring Instruments.
(4)	Y. N. Dhongdi Bandiwad Bhes, Hubli	Weights, Measures, Weighing and Measuring Instruments.
(5)	R. K. Dhupatane, C/o Krishna Lock Industries, Venkatpet, Bagalkot.	Weights, Measures, Weighing and Measuring Instruments.
(6)	S. S. Gondbal, Repairer in Weights and Measures, Koppal	Weights, Measures, Weighing and Measuring Instruments.
(7)	M. G. Gaikwad, Repairer of Weights and Measures, Mahaveer Road, Bijapur.	Weights, Measures, Weighing and Measuring Instruments.
(8)	I. M. Halakere, Sri Basaweshwar Repairing Workshop, Saraf Bazar, Jamkhandi.	Weights, Measures, Weighing and Measuring Instruments.
(9)	G. R. Honakalse, Contractor and Repairer of Weights and Measures, Main Road, Bijapur.	Weights, Measures, Weighing and Measuring Instruments.
(10)	A. R. Kandagal Weights and Measures Repairer, C/o G. D. Telivenkatapete, Bagalkot.	Weights, Measures, Weighing and Measuring Instruments.
(11)	C C. Kumarmath Deshapande Chawl, Fort, Dharwar ..	Weights, Measures, Weighing and Measuring Instruments.
(12)	A. A. Maniyar, Prop: Repairers of Weights and Measures, Raviwar Peth, Belgaum District.	Weights, Measures, Weighing and Measuring Instruments.
(13)	Misrilal Motilal, Main Rofid, Kirana Bazar, Gulbarga ..	Weights, Measures, Weighing and Measuring Instruments.
(14)	M. D. Mulla, C.T.S. No. 2665, Tatgar, Gokak	Weights, Measures, Weighing and Measuring Instruments.
(15)	Narayan Annappa Chawan, Shiddeshwar Ves Post, Athani, Bijapur District.	Weights, Measures, Weighing and Measuring Instruments.
(16)	New Star Scale Co., Prop: Salehe Omar, C/o Patel Cycle Taxi, Attar Bazar, Gulbarga	Weights, Measures, Weighing and Measuring Instruments.
(17)	Pioneer and Trading Corporation, No. 21 B, Mahatma Gandhi Road, Bangalore-1.	Weights, Measures, Weighing and Measuring Instruments.
(18)	L. C. Thakkar, Weights and Measures Dealer & Repairer, Hubli.	Weights, Measures, Weighing and Measuring Instruments.
(19)	D. B. Vibhuti, Mathapati Gali, Bijapur	Weights, Measures, Weighing and Measuring Instruments.

ORISSA (3)

In the March and July issues of *Metric Measures* lists of licensed manufacturers, dealers and repairers of weights and measures in Orissa State were published. The following is a list of manufacturers and dealers subsequently licensed by the Government of Orissa under the Orissa Weights and Measures (Enforcement) Act, 1958.

Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Avenue Weighing Scales Company, 135, Netaji Subash Road, Howrah.	Cast Iron Weights.
(2)	Orissa Agricultural Industries, P. O. Khetrajpur, Dist. Sambalpur, Orissa.	Cast Iron Weights.

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	S. Paul Chaudhury & Co., Buxi Bazar, Cuttack-1	Cast Iron Weights and Weighing Instruments.
(2)	Utkal Agency, Brooks Hill, P. O. Sambalpur, Dist. Sambalpur.	Cast Iron Weights.

CORRECTION

In the July 1960 issue in the list of Dealers appearing on page 39 under ORISSA (2) Item 4 should be corrected to read as **Monilal Doshi, Motiganj Bazzar, Balasore.**

Item 5 should be corrected to read as **Muralidhar Gopikissen (P) Ltd., P.B. No. 18, Balasore.**

TRIPURA (2)

In the March 1960 issue of *Metric Measures* a list of licensed dealers of weights and measures in Union Territory of Tripura was published. The following is a list of dealers subsequently licensed by the Tripura Administration under the Rajasthan Weights and Measures (Enforcement) Act, 1958, as extended to the Union Territory of Tripura.

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	Central Marketing Organisation, Agartala	Weights, Measures, Weighing and Measuring Instruments.
(2)	Kalyan Stores, 59, Central Road, Agartala	Weights, Measures, Weighing and Measuring Instruments.
(3)	Radharani Bhandar, 128, Motor Stand Road, Agartala ..	Weights, Measures, Weighing and Measuring Instruments.
(4)	Santalal Jibanlal, 58, Central Road, Agartala	Weights, Measures, Weighing and Measuring Instruments.

UTTAR PRADESH (3)

In the July and September 1960 issues of *Metric Measures* lists of manufacturers, dealers and repairers of weights and measures in Uttar Pradesh State were published. The following is a list of manufacturers, dealers and repairers subsequently licensed by the Government of Uttar Pradesh under the Uttar Pradesh Weights and Measures (Enforcement) Act, 1959.

Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Agrawal & Sons, 414, Alamgirganj, Bareilly	Weights.
(2)	Aryavart Engineering Works, Khairnagar, Meerut	Cast Iron and Brass Weights.
(3)	Ganesh Iron Foundry, Freeganj Road, Agra	Weights.
(4)	Gulab Rai Chotalal Iron Foundry, Belanganj Agra	Weights.
(5)	Indian Metal Industries, 2273, Moti Katra, Agra	Cast Iron & Brass Weights and Brass Measures.
(6)	Mahabir Foundry Works, C/o Mahabir Steel & Iron Rolling Mills Private Ltd., Hati Mai Ka Than, Gorakhpur.	Weights and Measures.
(7)	Model Industries, Ltd., Dayalbagh, Agra	Cast Iron Weights and Balances.
(8)	Moti Industrial Works, Debai, Bulandshahr	Weights, Weighing Machines, and Brass, bronze and cast iron weighing bridges.
(9)	Moti Lal Agrawal & Co., Freeganj, Agra	Cast Iron Weights and Brass Weights-50 g to 10 g.
(10)	National Engineering Works, Thapar Nagar, Meerut	Weights and Measures.
(11)	National Iron Foundry, Motilal Nehru Road, Agra	Cast Iron Weights.
(12)	Perfect Spring Manufacturing Co. (Regd.), Lal Kurti, Meerut Cantt.	Weights, Measures, Steel Yards and Beam Scales.
(13)	Ram Krishna Iron Foundry, Sasni Gate, Aligarh	Weights.
(14)	K.R. Sharma Iron Foundry, Pathwari, Belanganj, Agra	Cast Iron & Brass Weights.
(15)	Shiv Engineering Works Industrial Colony, Naini, Allahabad.	Cast Iron & Brass Weights.
(16)	Vinod Chandra Maheswari Iron Foundry, Sarai Bali, Atrauli Aligarh.	Weights.

Dealers .

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	Agrawal Hardware Stores, 42, Gautam Budh Marg, Lucknow	Weights, Weighing and Measuring Instruments.
(2)	Awasthi Stores, Water Works Road, Aishbagh, Lucknow ..	Weights and Measures. Weighing and Measuring Instruments.

Dealers (contd.)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(3)	Chandra Bhan Agarwal, Rakabganj, New Grain Market, Lucknow.	Weights and Measures.
(4)	Chandra Metal Co., 27, Gautam Budh Marg, Lucknow	Weights, Measures, Weighing and Measuring Instruments.
(5)	Gulab Chand Chhote Lal, Freeganj, Agra	Weights, Measures, Weighing and Measuring Instruments.
(6)	Indian Iron Foundry, Sultanganj, Agra	Weights.
(7)	Indian Metal Industries, 2273, Moti Katra, Agra ..	Weights and Measures.
(8)	Iqbal Ahmad, Azamnagar, Bareilly	Weights.
(9)	Jagdamba Iron Foundry, Pathwari, Belanganj, Agra ..	Weights.
(10)	Janta Iron Stores, Fatehganj, Lucknow	Weights, Measures, Weighing and Measuring Instruments.
(11)	Kanhayalal, 62, Beharipur, Khatriyan, Bareilly ..	Weights, Measures, Weighing and Measuring Instruments.
(12)	Krishna Iron Foundry, Gaurikunj, Freeganj, Agra ..	Cast Iron Weights.
(13)	Lala Govind Ram Saraf, Dharam Kante Vale, Shivaji Marg, Bareilly.	Weights, Measures, Weighing and Measuring Instruments.
(14)	Lucknow Mill Stores, 24, Latouche, Road, Lucknow ..	Weights, Measures, Weighing and Measuring Instruments.
(15)	Mahabir Steel & Iron Re-Rolling Mills Private Ltd., Hathi Mai Ka Than, Eastern Gate, Gorakhpur.	Weights and Measures.
(16)	Mallomal Ram Pershad Iron Foundry, Belanganj, Agra ..	Weights.
(17)	Mohd. Kareel Moh. Bagh Ahmad Alikhan, Near Lal Masjid, Bareilly.	Weights and Measures.
(18)	Moti Industrial Works, Kundan Sarai, P.O. Debri, District Bulandshahr.	Weights, Measures, Weighing and Measuring Instruments.
(19)	Neamatullah, 644, Moonbuilding, Azamnagar, Bareilly ..	Weights.
(20)	Perfect Spring Manufacturing Co., (Regd.), Lal Kurti, Meerut Cantt.	Weights, Measures, Weighing and Measuring Instruments.
(21)	Prabhat Iron Foundry, Freeganj Road, Agra	Weights.
(22)	Ram Bharosey Lal & Ram Das Varna, Alamganj, Shop No. 269, Bareilly.	Weights, Measures, Weighing and Measuring Instruments.
(23)	Ram Kumar Sahu, 17, Gur Mandi (Mirganj), Allahabad ..	Weights.
(24)	Ram Narain Ram Manohar, 616, Ahiya Puri, Allahabad ..	Weights.
(25)	Sakat Behari Madan Mohan, Iron Merchant, Bara Bazar, Bareilly.	Weights, Measures, Weighing and Measuring Instruments.
(26)	Shankar & Company, C/o Allahabad Bank Ltd., Meerut Cantt.	Weights and Measures.
(27)	Sheo Shankar Lal Mani Shankar Lal, Moh. Sahebganj Bazar, Gorakhpur.	Cast Iron & Brass Weight, Measures, Weighing and Measuring Instruments.

Repairers

Sl. No.	Name and Address of Repairer	Details of Articles Repaired
(1)	Agrawal Hardware Stores, 12, Station Road, Lucknow ..	Scales.
(2)	Indian Iron Foundry, Sultanganj, Agra	Weights.
(3)	Indian Metal Industries, 2273, Moti Katra, Agra ..	Weights.
(4)	Mallomal Ram Pershad, Iron Foundry, Belanganj, Agra ..	Weights, Measures, Weighing and Measuring Instruments.
(5)	Perfect Spring Manufacturing, Lal Kurti, Meerut Cantt. ..	Weights, Measures, Weighing and Measuring Instruments and scale yards.
(6)	Seal & Sons, 119/320, Ramnagar, Kanpur	Weighing Instruments.

WEST BENGAL (3)

In the March and July 1960 issues of *Metric Measures* lists of licensed manufacturers, dealers and repairers in West Bengal were published. The following is a list of manufacturers, dealers and repairers subsequently licensed by the Government of West Bengal under the West Bengal Weights and Measures (Enforcement) Act, 1958.

Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Dinesh Ch. Karmakar, 225, Mahatma Gandhi Road, Calcutta-7.	Beam scale.
(2)	Duston Eng. Corp. (P) Ltd., 13, Brabourne Road, Calcutta-1.	Cast Iron & Brass Weights and Weighing Instruments.
(3)	Eastern Weighing Machine Co., 192, Mahendra Bhattacharjee Road, Howrah.	Counter Scales.
(4)	Economic Scientific Works, 97A, Ram Damg Road, Salkia, Howrah.	Beam Scales of Class A & B & Brass Weights.
(5)	Ganges Foundry Works, 5, Fairlie Place, Calcutta ..	Cast Iron and Brass Weights.
(6)	D. Ghose & Co., 36, 37, Khangrapatty Street, Calcutta-7 ..	Bullion and non-bullion brass scales.
(7)	Great Eastern Machine House (P) Ltd., P 55, Beneras Road, P.O. Dasnagar, Howrah.	Cast Iron Weights.
(8)	Liluah Iron Works, 6, Guha Park, Lilluah, Howrah ..	Cast Iron Weights.
(9)	Krishna Private Ltd., 193, Cross Street, Calcutta-7 ..	Cast Iron Weights.
(10)	S.K. Nath, 8, Ratan Babu Road, Calcutta-2.	Brass Beam Scales and Brass Weights.

Dealers

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(1)	Annapurna Hardware Stores, 78, Netaji Subhas Road, Calcutta-7.	Cast Iron Weights.
(2)	Avery Co. of India Private Ltd., 28/2, Waterloo Street, Calcutta-1.	Weights and Weighing Instruments.

Repairers

Sl. No.	Name and Address of Repairer	Details of Articles repaired
(1)	Asiatic Machinery Corpn. Ltd., 101, Kailash Chandra Lane, Howrah.	Weighing Scales & Weighbridges.
(2)	Avery Company of India (P) Ltd., 28/2, Waterloo Street, Calcutta-1.	Weights and Weighing Instruments.
(3)	Bharat Weighing Scales & Eng. Syn., 75/1, Kalachand Nandi Lane, Howrah.	Weighing Instruments.
(4)	Bharati Scales & Eng. Co., 4/1, Halderpara Lane, Howrah.	Platform Scales, Weighbridge and Beam Scales.
(5)	Eastern Weighing Machine Co., 192, Mahendra Bhattacharjee Road, Howrah.	Weighing Instruments excluding Beam Scales.
(6)	S.P. Guchait & Sons, (P) Ltd., 2, Madhusudhan Pal Chowdhury Lane, Howrah.	Weighing Instruments excluding Beam Scales.
(7)	Hindustan Weighbridge & Eng. Co., 26, N.K. Guin Lane, Sreerampur, Hoogly.	Weighing Instruments.
(8)	House of Commerce, 5/2, Garstin Place, Calcutta-7	Spring Balance.
(9)	India Machinery Co. Ltd., Managing Agents, Das Group (P) Ltd., Dasnagar, Howrah.	Weighing Instruments including Beam Scales.
(10)	W.B. Lowson & Co., 116, Ripon Street, Calcutta-16	Beam Scales and Weighing Instruments.
(11)	Nagendra Nath Karmakar, S/o, Wooma Charan Karmakar, Prop. Makhanlal Karmakar & Sons, 208 Mahatma Gandhi Road, Calcutta-7.	Beam Scales, Counter Scales and Brass Weights.
(12)	Raman Industries, 193, Netaji Subhas Road, Howrah	Weighing Instruments other than Beam Scales.
(13)	W.B. Scales & Co., 10, Kailash Chandra Lane, Howrah	Weighing Instruments other than Beam Scales.
(14)	Scientia Industry (India) P. Ltd., 34, Bannerjee Bagan Lane, Salkia, Howrah.	Weights and Beam Scales.
(15)	Sham Sundar & Co., 16/1, Beliaghata Main Road, Calcutta-10.	Weighing Instruments.
(16)	O.K. Weighers (India) Private Ltd., 15 & 16, Madhusudhan Pal Chowdhury Lane, Howrah.	Weighing Instruments excluding Beam Scales.
(17)	Wooma Charan Karmakar, Prop. Jogendra Nath Karmakar, 23/C, Narikeldanga Main Road, Calcutta-11.	Beam Scales.
(18)	Wooma Charan Karmakar, Prop. Tarak Ch. Karmakar and others, 22D & 23A, Narikeldanga Main Road, Calcutta-11.	Beam Scales and Counter Scales.
(19)	Wooma Charan Karmakar, Prop. Dwijendra Lal Karmakar, 22D & 23A, Narikeldanga Main Road, Calcutta-11.	Beam Scales.

CONVERSION TABLE OF PRICES FOR WEIGHTS

TABLE A

GOLD

(Factor used 1 gram (g) = 0.085735 tola

Naye paise per tola to naye paise per 10 grams (10g)

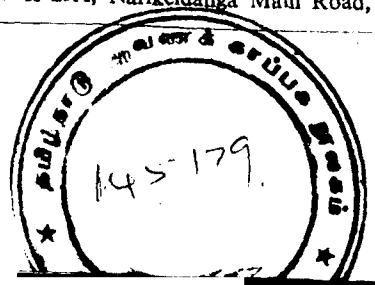
	0	1	2	3	4	5	6	7	8	9
nP/tola	nP/10g	nP/10g	nP/10g	nP/10g	nP/10g	nP/10g	nP/10g	nP/10g	nP/10g	nP/10g
0	0	1	2	3	3	4	5	6	7	8
10	9	9	10	11	12	13	14	15	15	16
20	17	18	19	20	21	21	22	23	24	25
30	26	27	27	28	29	30	31	32	33	33
40	34	35	36	37	38	39	39	40	41	42
50	43	44	45	45	46	47	48	49	50	51
60	51	52	53	54	55	56	57	57	58	59
70	60	61	62	63	63	64	64	66	67	68
80	69	69	70	71	72	73	74	75	75	76
90	77	78	79	80	81	81	82	83	84	85
100	86									

TABLE B

(Factor used : 1 gram (g) = 0.085735 tola

Rupees per tola to Rs. per 10 grams (10g)

Rs/tola	0	1	2	3	4	5	6	7	8	9
	Rs/10g	Rs/10g	Rs/10g	Rs/10g	Rs/10g	Rs/10g	Rs/10g	Rs/10g	Rs/10g	Rs/10g
100	85.74	86.59	87.45	88.31	89.16	90.02	90.88	91.74	92.59	93.45
110	94.31	95.17	96.02	96.88	97.74	98.60	99.45	100.31	101.17	102.03
120	102.88	103.74	104.60	105.45	106.31	107.17	108.03	108.88	109.74	110.60
130	111.46	112.31	113.17	114.03	114.89	115.74	116.60	117.46	118.31	119.17
140	120.03	120.89	121.74	122.60	123.46	124.32	125.17	126.03	126.89	127.75
150	128.60									



METRIC WEIGHTS COMPULSORY

From October 1, 1960 only Metric Weights should be used in all transactions in the areas given below. All Metric commercial weights should be duly stamped by the Weights and Measures authority. It will be illegal to use any other weights.

ANDHRA PRADESH : Districts of Visakhapatnam, Krishna, Guntur, Kurnool, Hyderabad, Warangal, Nizamabad and all the Regulated Markets in the State.

ASSAM : District of Nowgong and town of Gauhati.

BIHAR : Divisions of Bhagalpur and Ranchi and the Municipal and Notified area in Patna and Tirhut Divisions.

GUJARAT : Cities of Ahmedabad, Rajkot Baroda and all the Regulated Markets in the State.

KERALA : Districts of Kozhikode, Ernakulam and Quilon.

MADHYA PRADESH : Districts of Sehore, Indore, Gwalior and Jabalpur.

MADRAS : Districts of Madras, Chingleput, South Arcot, North Arcot and all the Regulated Markets in the State.

MAHARASHTRA : Cities of Bombay, Poona, Nagpur, Aurangabad, Sholapur, Kolhapur, Akola, Amravati, Wardha, Yeotmal and all the Regulated Markets in the State.

MYSORE : Districts of Bangalore, Raichur, Dharwar and all the Regulated Markets in the State.

ORISSA : Towns of Berhampur, Cuttack and Sambalpur.

PUNJAB : Districts of Amritsar, Jullundur, Ludhiana, Ambala, Patiala, Gurgaon and all the Regulated Markets in the State.

RAJASTHAN : Districts of Ajmer, Bikaner, Jodhpur, Jaipur, Kotah and Udaipur.

UTTAR PRADESH : Towns of Meerut, Agra, Lucknow, Bareilly, Moradabad, Varanasi, Kanpur, Jhansi, Allahabad and Gorakhpur.

WEST BENGAL : Municipal areas of Calcutta and Howrah.

DELHI : The whole of Delhi.

HIMACHA PRADESH : Districts of Mandi and Sirmur.

MANIPUR : Town of Imphal.

TRIPURA : Town of Agartala.

ANDAMAN AND NICOBAR ISLANDS : Town of Port Blair.

PONDICHERRY : The whole of Pondicherry.



Use of Metric System of Weights and Measures is compulsory in transaction in the following trades and industries :

Jute, Cotton, Textiles, Iron and Steel, Engineering, Heavy Chemicals, Cement, Salt, Paper, Refractories, Non-ferrous metals and rubber industries, Vanaspati, Soap, Woollen products, control of forward markets in Cotton and in transactions of the Coffee Board.

METRIC SYSTEM

FOR SIMPLICITY AND UNIFORMITY

ISSUED BY GOVERNMENT OF INDIA