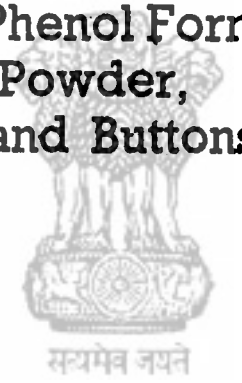
GOVERNMENT OF INDIA

TARIFF COMMISSION

REPORT ON

The Continuance of Protection to the Plastics (Phenol Formaldehyde Moulding Powder, Electrical Accessories and Buttons) Industry



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PANEL FOR THE INQUIRY

Shri C. Ramasubban

Dr. S. K. Muranjan

Shri S. K. Bose, M.A., I.A.S.—*Secretary*

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE AND INDUSTRY

RESOLUTION

TARIFFS

New Delhi, the 4th August 1956.

No. 27(1)-T.B./56.—The Tariff Commission has submitted its Report on the continuance of protection to the plastics (Phenol Formaldehyde Moulding Powder, Electrical Accessories and Buttons) Industry, on the basis of an inquiry undertaken by it under sections 11(e) and 13 of the Tariff Commission Act, 1951. Its recommendations are summarised below :—

(1) Protection to the section of the industry engaged in the manufacture of phenol formaldehyde moulding powder should be continued at the existing rate of duty, namely, 31½ per cent *ad valorem* for a period of three years, *i.e.*, till the 31st December, 1959.

(2) Protection to the section of the industry engaged in the manufacture of plastic buttons should be continued for a period of three years, *i.e.*, till the 31st December, 1959 at the existing rate of duty, namely, 66·2/3 per cent *ad valorem* or 12 annas per gross, whichever is higher.

(3) Protection to the section of the industry engaged in the manufacture of electrical accessories should be discontinued after the 31st December, 1956.

(4) Manufacturers of phenol formaldehyde moulding powder, having a minimum annual production of 200 tons, should continue to enjoy the concession in the form of refund of duty paid on imports of phenol, formaldehyde and hexamine.

(5) Government should examine the possibility of extending the validity of licences for import of urea formaldehyde moulding powder for one year instead of six months as at present.

(6) There is justification in the claim made by the manufacturers of electrical accessories that they should be allowed to import moulding powder, as at present, so long as there is no assured supply of high quality moulding powder which is certified as conforming to recognised standards.

(7) The Ministry of Defence should examine the possibility of making available directly to the manufacturers of electrical accessories their requirements of extruded brass rods, tubes and sheets from the Ordnance Factory at Katni at reasonable prices.

(8) Government should inquire into the demand for moulds from different plastic industries and after fuller investigation formulate a scheme for setting up a central mould making organisation.

(9) Statistics relating to imports of urea formaldehyde moulding powder should be recorded separately by the Director-General of Commercial Intelligence and Statistics and Collectors of Customs.

(10) The Indian Standards Institution should complete at the earliest the work of formulation of standards for phenolic moulding materials.

(11) The Indian Standards Institution should finalise standard specifications for plastic buttons at the earliest.

(12) The manufacturing units should take immediate steps to equip themselves with facilities for testing moulding powder according to standard methods.

(13) The phenol moulding powder industry should improve and maintain the quality of its product and should approach the Indian Standards Institution for acceptance of its product under the Certification Marks Act.

(14) The manufacturers of electrical accessories should extend their co-operation to the Indian Standards Institution for speedy finalisation of standard specifications for all items of electrical accessories which are manufactured in the country. After the standards have been finalised they should apply to the Institution for inclusion of their products among those to be stamped with the ISI mark in accordance with the provisions of the Certification Marks Act.

2. Government accept recommendations (1) to (3) above, and the necessary legislation will be undertaken in course to implement them.

3. Government also accept recommendations (5) and (6) and have taken steps to implement them by making necessary provision in the import policy for the July-December, 1956 licensing period. Recommendation (4) has also been accepted by Government.

4. As regards recommendation (7), manufacturers of plastic electrical accessories are advised to get together and rationalise their requirements of extruded brass items in regards to composition, specification and sizes, and inform the Ordnance Factory at Katni of their requirements in advance.

5. As for recommendation (8), the question of establishing a central mould-making organisation has been examined from time to time. A blueprint for the manufacture of moulds in the central tool room was also prepared by a United Nations Expert, but no progress could be made for lack of support from Indian moulders.

6. Government accept recommendations (9) to (11) and will take suitable steps to implement them as far as possible.

7. Attention of the industry is invited to recommendations (12) to (14).

ORDER

ORDERED that a copy of the Resolution be communicated to all concerned and that it be published in the Gazette of India.

N. SUBRAHMANYAM,
Joint Secretary to the Government of India.

CONTENTS

APPENDICES

REPORT ON THE CONTINUANCE OF PROTECTION TO THE PLASTICS (PHENOL FORMALDEHYDE MOULDING POWDER, ELECTRICAL ACCESSORIES AND BUTTONS) INDUSTRY

Origin of the case.

1.1. The plastics industry was granted protection by the Government of India, Ministry of Commerce Resolution No. 27(2)-T.B./49 dated 7th January, 1950 in accordance with the recommendations made by the Indian Tariff Board in its Report dated 13th August 1949. The scheme of protection which was to remain in force up to 31st March, 1953 was briefly as follows :—

(i) The existing revenue duty of 30 per cent. *ad valorem* on phenol formaldehyde moulding powder was converted into an equivalent protective duty.

(ii) In respect of electrical accessories, such as wall plugs, switches, ceiling roses and lamp holders, the existing preferential revenue duty of 24 per cent. *ad valorem* was converted into protective duty at an enhanced rate of 30 per cent. *ad valorem* preferential and the standard rate of protective duty was fixed at 40 per cent. in accordance with the terms of the Indo-British Trade Agreement, 1939.

(iii) The manufacturers of phenol formaldehyde moulding powder having a minimum annual production of 200 tons were granted refund of the import duty paid by them on the three important raw materials, namely, phenol formaldehyde and hexamine.

Protection to the industry was extended from year to year up to 31st December, 1956, on the recommendations of the Tariff Commission by the different Indian Tariff (Amendment) Acts. In the meantime by the Finance Act of 1951 the standard rate of protective duty on phenol formaldehyde moulding powder was increased from 30 per cent. to 31½ per cent. *ad valorem* and the rates of duty on electrical accessories were increased from 40 per cent. to 42 per cent. *ad valorem* standard and 30 per cent. to 31½ per cent. *ad valorem* preferential. Further increases in the preferential rate of duty on electrical accessories from 31½ per cent. to 50 per cent. and the standard rate of duty from 42 per cent. to 60 per cent. *ad valorem* were effected by the Finance Act of 1954.

1.2. The buttons industry was granted protection for the first time by the Government of India, Ministry of Commerce Resolution No. 45(1)T.B./50 dated 13th January, 1951 in accordance with the recommendation made by the Indian Tariff Board in its Report dated 6th November, 1950. Protection was granted in the first instance, up to 31st December, 1953 by the following measures :—

(i) The existing revenue duty of 30 per cent. *ad valorem* on buttons, studs and cuff links made of any material (other than glass and porcelain) but excluding gold or silver plated buttons and buttons classed as artificial jewellery was converted into a protective duty at the same rate;

(ii) The existing revenue duty of 35 per cent. *ad valorem* on porcelain buttons was converted into a protective duty at the same rate.

The rate of duty on all protected items of buttons was increased to 66⅔ per cent. *ad valorem* by the Finance Act of 1953. Before the period of protection granted to this industry expired, the Tariff Commission undertook an inquiry and submitted its Report to Government on 18th September 1953. The revised scheme of protection embodied in the Government of India, Ministry of Commerce and Industry Resolution No. 45(1)-T.B./53 dated 28th November, 1953 was as follows:—

(i) No protection was required for the indigenous dum nut, mother-of-pearl or metal buttons against competition from the same varieties of buttons imported from any source;

(ii) The plastics buttons industry, which needed protection only against imports from Japan, was protected by means of a protective duty at the rate of 66⅔ per cent. *ad valorem* or 12 annas per gross, whichever was higher.

This protective duty was to remain in force up to 31st December, 1955 but the period was extended by one more year, *i.e.*, up to 31st December, 1956 by the Indian Tariff (Third Amendment) Act, 1955.

1.3. The present inquiry has been undertaken under Section 11(e) read with Section 13 of the Tariff Commission Act, 1951, under which the Commission is empowered to inquire into and report on any further action in relation to the protection granted to an industry with a view to its increase, decrease, modification or abolition according to the circumstances of the case. As protection to the buttons industry was restricted to buttons made of plastics and as the period of protection was to expire on 31st December, 1956, we have decided to take up the question of this section of the industry along with the case for continuance of protection to the plastics industry.

Method of inquiry.

2.1. On 25th July, 1955, the Commission issued a press note inviting persons and associations interested in the plastics industry (including buttons made of plastics) to obtain copies of the relevant questionnaires from the office of the Commission and to submit replies thereto. A list of those to whom questionnaires were issued and those from whom replies or memoranda were received is given in Appendix I. The Chief Industrial Adviser, Ministry of Commerce and Industry (Development Wing) was requested to send a detailed memorandum on the industry including information regarding the steps taken to implement the recommendations made by the Tariff Board in its Report in 1949. Collectors of Customs and leading importers were requested to furnish information regarding c.i.f. prices and landed costs of the imported products. The All India Plastics Manufacturers Association, Bombay was requested to furnish the Commission with a memorandum on the industry. India's commercial representatives in Japan, West Germany, Italy and the U. K. were addressed for information regarding latest f.o.b. prices of phenol formaldehyde moulding powder, electrical accessories and buttons.

2.2. Shri C. Ramasubban and Dr. S. K. Muranjan, Members accompanied by Shri S. S. Mehta, Technical Director (Chemicals) visited the Industrial Plastics Corporation Ltd., Indian Plastics Ltd. and Hindusthan Plastics Ltd., all at Bombay on 20th February, 1956 and

the Kersons Manufacturing Co. of India Ltd., Bombay on 21st February, 1956. Shri S. S. Mehta, Technical Director (Chemicals) visited the factory of Rattanchand Harjas Rai (Plastics) Ltd., Amritsar on 19th February, 1955. Shri S. V. Rajan, Cost Accounts Officer visited the Industrial Plastics Corporation Ltd., Bombay on 10th August, 1955, Hindusthan Plastics Ltd. on 17th August, 1955 & Kersons manufacturing Co. of India Ltd., on 5th September, 1955 and examined the cost of production of phenol formaldehyde moulding powder, buttons and electrical accessories manufactured by the three concerns respectively.

2.3. A public inquiry was held on 27th Februray, 1956 at the Commission's office in Bombay. A list of persons who attended the inquiry is given in Appendix II.

Scope of the inquiry.

3.1. The scope of the Tariff Board's inquiry in 1949 covered the plastics industry in general comprising the following branches :—

(i) Moulding powder and resins, such as phenol formaldehyde moulding powder, urea formaldehyde moulding powder, cellulose acetate, cellulose nitrate, cellulose butyrate, polystyrene, polyvinyl chloride, casein;

(ii) Semi-fabricated plastic materials, such as sheets, tubes and rods made of methacrylate, cellulose acetate, cellulose nitrate, casein;

(iii) All kinds of finished articles made of plastic substances.

As a result of the Board's recommendations, protective duties were levied on phenol formaldehyde moulding powder and electrical accessories made of plastics. In addition, the duties on cellulose nitrate (sheets, rods and tubes), rennet casein and polyvinyl chloride were reduced from 30 per cent. to 20 per cent. *ad valorem.*

3.2. In the course of the last seven years, following the first inquiry into the plastics industry in 1949 considerable development has taken place in the industry including the manufacture of many new products. During this period several representations were made by the industry to the Tariff Board/Commission and the Government of India to extend the protection to some of these new products. After a discussion with the representatives of the Association and in consultation with the Development Wing of the Ministry of Commerce and Industry, it was decided by the Commission early in 1955 that the scope of the Commission's next inquiry should be tentatively confined to the following products of the plastics industry :—

(1) Phenol formaldehyde resin and moulding powder and urea formaldehyde moulding powder.

(2) Alkyd resins.

(3) Laminated and reinforced sheets.

(4) Electrical accessories made of phenol formaldehyde moulding powder.

(5) Buttons.

(6) Tooth brushes.

(7) Spectacle frames.

(8) Unsupported sheets.

(9) Films and layflat tubes.

(10) Miscellaneous extruded articles.

(11) P.V.C. insulated cables, wires and flexibles.

Questionnaires were accordingly issued to various interests concerned with the above mentioned products. The response to these questionnaires, however, was not satisfactory and the information collected was not adequate for proceeding with the inquiry into all the branches of the plastic industry enumerated above. It was also necessary not to delay the review of the case for continuance of protection to those sections of the industry which were enjoying protective duties. It was, therefore, decided to limit the scope of the inquiry to phenol formaldehyde moulding powder and electrical accessories, and to inquire, simultaneously, into the case for continuance of protection to buttons (made of plastics) industry as the manufacture of plastic buttons forms a section of the plastics industry.

A. Phenol Formaldehyde Moulding Powder

Raw materials.

4. The principal raw materials used in the manufacture of phenol formaldehyde moulding powder are phenol, formaldehyde and hexamine which are imported and wood flour which is obtained from indigenous sources. Phenol is one of the products directly obtained in the distillation of coal tar but only a small quantity is produced by that process. The bulk of it is manufactured from benzene. A small quantity is produced in India by the former process and its production on large scale by the latter process is under consideration along with that of other intermediates to be produced for meeting the requirements of dyestuffs and other organic chemical industries. Phenol is allowed to be imported at present under O.G.L. and bears a duty of 25 per cent. *ad valorem*. Formaldehyde is not produced at present in India, but a scheme for its production from coke oven gases at Sindri is under consideration. Licences for its import are granted to actual users on an *ad hoc* basis and on import it is assessed to duty at a standard rate of 37·8 per cent. and a preferential rate of 27·3 per cent. *ad valorem*. Hexamine is allowed to be imported for the requirements of actual users and bears a standard rate of duty of 37·8 per cent. and a preferential rate of duty of 27·3 per cent. *ad valorem*. The country's requirements of hexamine are small and there is no scheme for its production on a commercial scale. The duties on the above three raw materials, namely, phenol formaldehyde and hexamine are at present refunded when used in the manufacture of phenol formaldehyde moulding powder to those manufacturers who produce a minimum of 200 tons of phenol formaldehyde moulding powder per annum. Two of the firms, namely, the Industrial Plastics Corporation Ltd., and the Indian Plastics Ltd., who satisfy this condition have qualified for this concession. Wood flour is made from selected wood shavings which are obtained from local sources and ground to a fine powder. Wood flour is replaced by other fillers such as mica, asbestos, hard rubber dust, etc. for the manufacture of special grades of moulding powders.

5. At the time of the last inquiry the Industrial Plastics Corporation Ltd., Bombay was the only firm producing phenol formaldehyde moulding powder on a commercial scale. The firm was converted into a public limited company in 1950 as recommended by the Tariff Board in its report. The factory has been shifted to its new premises and its production capacity has increased from 450 to 750 tons per annum on single shift basis. The Indian Plastics Ltd., Bombay was carrying out experimental production of phenol formaldehyde moulding powder along with its production of plastic goods at the time of the last inquiry. The factory of this firm also has been shifted to its new premises and commercial production of phenol formaldehyde moulding powder has been established. There are two other manufacturers of phenol formaldehyde moulding powder, namely, Plastic Products of India Ltd., Satara and the Bharat Electrical Manufacturing Co. Ltd., Sihore, Saurashtra. The former was carrying out experimental production at the time of the previous inquiry but it has not been in commercial production and has stopped producing since 1954 due to financial difficulties. The other firm went into production of electrical accessories in 1950 and has been producing moulding powder only for its own requirements. The production of phenol formaldehyde moulding powder was of the order of 125 tons per annum at the time of the last inquiry. Two units in the industry have made considerable progress as will be observed from the following statement showing the rated capacity and actual production of moulding powder during the years 1953, 1954 and 1955 as furnished by the producers:—

Rated capacity and production.

(Figures in tons)

Name of the producer	Present annual capacity on single shift basis	Actual production		
		1953	1954	1955
1	2	3	4	5
1. The Industrial Plastics Corporation Ltd., Bombay	750	262·25	246·56	437·60
2. Indian Plastics Ltd., Bombay	128	91·70	*224·27	*281·47
3. Plastic Products of India Ltd., Satara	107	21·14	Nil.	Nil.
4. Bharat Electrical Manufacturing Co. Ltd., Sihore (Saurashtra)	150	6·50	1·30	8·90
TOTAL	1,135	381·59	472·13	727·97

*The plant was operated for more than one shift.

6. The Tariff Board in its last Report (1949) estimated the indigenous demand for phenol formaldehyde moulding powder at 1,000 tons in 1950, 1,500 tons in 1951 and 2,000 tons in 1952. In the course of the present investigation we have received estimates ranging from 700 tons at present to 1,200 tons after three years.

Domestic demand.

We have also before us the following information regarding indigenous production and imports of phenol formaldehyde moulding powder for the last three years :—

(Figures in tons)

	1953	1954	1955
Production	382	472	728
Imports	116	207	204
TOTAL	498	679	932

The figures relating to imports are as stated by the Director General of Commercial Intelligence and Statistics except for 1955. According to the information received from this authority the imports during the year 1955 were 397·65 tons valued at Rs. 439,761 which would average to a value per ton of Rs. 1,106 as against the average value per ton of Rs. 2,544 during 1953 and Rs. 2,556 during 1954. It was stated at the public inquiry that the imports during 1955 into Bombay port alone amounted to about 66·3 tons valued at Rs. 142,901 according to the published customs returns. The average value per ton during 1955 thus works out to Rs. 2,155 per ton at Bombay port. It would, therefore, appear that there is an error either in the figure of quantity or value as recorded by the D.G.C.I. & S. during 1955. Licences for imports of phenol formaldehyde moulding powder are granted only to manufacturers of electrical accessories who prefer to import their requirements. Such units are not many and their production has not increased in 1955 over that in 1953 and 1954 to such an extent as to account for an increase of about 100 per cent. in the quantity of imported powder. We, therefore, feel justified in adopting the *value* of imports during 1955, namely Rs. 439,761 as correct and working out the quantity on the basis of Rs. 2,155 per ton. The resultant figure is 204 tons. The total of production and imports during 1955 would, in that case be 932 tons. We, therefore, estimate the annual requirements of phenol formaldehyde moulding powder at about 1,000 tons at present and this may go up to about 1,500 tons in the next three years.

Quality.

7.1. The Tariff Board in its report (1949) recommended that early steps should be taken for the formulation and enforcement of proper standards, both in respect of moulding powder and finished articles made of plastics. Formulation of standards for phenolic moulding powders is on the programme of the Plastics Sectional Committee of the Indian Standards Institution which has taken the first step towards standardisation by formulating an Indian Standard for methods of sampling and testing phenolic moulding materials. We understand that the next step envisaged is to conduct tests on samples of indigenous and imported powders in order to determine limits for the various requirements for each test. This information will be utilised for the formulation of the Indian standards for phenolic moulding powders.

7.2. Phenolic moulding powders are produced in various grades, those specified in B.S.S. 771 which is the standard generally followed by the industry being:—

Type G	—	General type.
Type GX	—	Improved General type.
Type HD	—	High dielectric type.
Type MS	—	Medium shock resistant type.
Type MHS	—	Medium high shock resistant type.
Type HS	—	High shock resistant type.
Type HR	—	Heat resistant type.
Type L	—	Electrical low loss type.

Moulding powders are required to conform to various specifications and limits in respect of the following properties:—

1. Tensile strength;
2. Impact strength;
3. Surface resistivity after immersion in water;
4. Volume resistivity;
5. Heat resistance;
6. Power factor;
7. Permittivity;
8. Water absorption;
9. Plastic yield;
10. Electric strength;
11. Solubility in accetone;
12. Apparent powder density and bulk factor;
13. Flow;
14. Shrinkage;
15. Density;
16. Crushing Strength;
17. Cross breaking strength;
18. Shear strength; and
19. Elastic modulus in tension.

7.3. Indigenous phenol formaldehyde moulding powder has found wide acceptance during recent years for the manufacture of general purpose goods and to some extent for the manufacture of electrical accessories. On the other hand some manufacturers of electrical accessories have complained that the indigenous moulding powder is not uniform in quality, has poor flow characteristics and produces moulding with poor finish. These manufacturers are amongst those who market electrical accessories of high quality and have stated that they would, in the absence of a standardised Indian product, prefer to import moulding powder even at a higher cost in order to maintain the quality of their finished products. Certain consumers have also complained that although small samples of good quality were supplied by producers, consistency in quality was not maintained when

bulk supplies were made and there were wide variations in the quality of different consignments. The problem relating to maintenance of standard consistency in quality is closely linked up with the need for laying down standard tests and for standard testing equipment and the factors to be considered in this connection are set out below.

In the list of properties to be tested, shown in 7·2 above, there are (i) those properties which should be tested in each batch, (ii) those which should be tested at short intervals, and (iii) those which need to be tested at long intervals. One of the firms has facilities for carrying out a few of the tests in group (i) but none in groups (ii) & (iii). The firm has informed us that it has a scheme for setting up laboratory equipment for carrying out all the required tests. The other firm has installed equipment to carry out all the tests in group (i) as well as some of the important ones in groups (ii) & (iii). This firm proposes to equip itself in about 6 months' time with facilities to carry out all the required tests. So far as independent testing facilities are concerned only the Department of Chemical Technology, Bombay is equipped for carrying out the various tests. These facilities, however, are primarily meant for meeting the Department's educational needs and are not available to the industry at all times. In these circumstances, even if the manufacturers are capable of producing material of good quality and in different grades, the consumer has no assurance of getting the material required by him and we feel that there is justification for the demand made by manufacturers of electrical accessories that they should be allowed to import moulding powder, as at present, so long as there is no assured supply of high quality moulding powder which is certified as conforming to a recognised standard.

7.4. In order to ensure that phenol formaldehyde moulding powder of standard quality is produced in the country we recommend that : (a) Indian Standards Institution should complete, at the earliest, the work of formulation of standards for phenolic moulding materials; (b) The manufacturing units should take immediate steps to equip themselves with facilities for testing the moulding powders according to the standard methods; and (c) The industry should improve and maintain the quality of its product and should approach the Indian Standards Institution for acceptance of its product under the Certification Marks Act.

Imports and import control policy.

8.1. *Imports.*—Figures relating to imports of phenol formaldehyde moulding powder are not separately recorded in the Accounts Relating to the Foreign (Sea, Air and Land) Trade & Navigation of India. The Director General of Commercial Intelligence & Statistics has been furnishing us with information relating to imports of phenol formaldehyde moulding powder in his monthly returns relating to protected commodities. According to the records the quantity and value of imports was 115·8 tons valued at Rs. 2,94,601 during 1953, 207·05 tons valued at Rs. 5,29,305 during 1954 and 397·65 tons valued at Rs. 4,39,761 during 1955. The figures for 1955 are reported to be subject to verification by the D.G.C.I.&S. and in our view the quantity should be 204 tons as stated in paragraph 6.

8.2. *Import Control Policy.*—Phenol formaldehyde moulding is classified under Serial No. 111—Part V of the Import Trade Control Schedule. During the years 1953, 1954 and 1955 no licences were granted to established importers while applications from actual users manufacturing electrical accessories were considered. The same policy is being continued during the current half year.

Existing rate of duty.

9. Phenol formaldehyde moulding powder is assessed to duty under item No. 82(3) of the First Schedule to the Indian Customs Tariff. The relevant extract from the fortieth issue of the Indian Customs Tariff Schedule is given below:—

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective rates of duty
				The U.K.	A British Colony	Burma	
82(3)	Phenol formaldehyde moulding powder.	Protective.	31 1/2 per cent. *ad valorem*.	..	..	..	December 31st, 1956.

Commission's estimate of cost of production and fair ex-works price of indigenous phenol formaldehyde moulding powder.

10.1. One of our Cost Accounts Officers has examined the cost of production of phenol formaldehyde moulding powder at the factory of the Industrial Plastics Corporation, Bombay and has submitted to us his Cost Report which is forwarded as a separate confidential enclosure to this Report. We have discussed the cost data with the representatives of the company and have prepared our estimate of the future cost of production and fair ex-works price of phenol formaldehyde moulding powder. The following statement gives the breakdown under main heads of the actual cost of production per lb. for the year 1954 and our estimate of the future cost of production:—

Particulars	Actuals during 1954	Estimate for future
	Rs.	Rs.
(i) Cost of Raw materials	0·763	0·806
(ii) Conversion cost including depreciation	0·282	0·200
(iii) Packing materials	0·025	0·025
(iv) Total factory cost	1·070	1·031
(v) Interest on working capital	0·016	0·015
(vi) Return on block	0·022	0·015
(vii) Fair ex-works price	1·108	1·061
		(Say Re. 1-1-0)

10.2. The following factors have been taken into account in estimating the fair ex-works price for the future:—

(i) *Production.*—During the year 1954, which was the period chosen for arriving at the actual cost of production, the firm produced about 552,000 lbs. of moulding powder. Estimate of future cost of production has been worked out on an assumed production of 800,000 lbs. after taking into account the actual production of the factory during 1955, which was about 980,000 lbs. and the possibility that the market may be divided between the two major producers in future.

(ii) *Raw materials.*—The requirements of various raw materials have been assumed on the basis of the actuals during 1954 and the first half of 1955, and at prices relating to the latest purchases. In calculating the cost of production and the future estimate, the cost of imported raw materials was taken inclusive of customs duty. The company has, however, been claiming refund of import duty paid on phenol formaldehyde and hexamine which worked out to Re. 0·135 per lb. of moulding powder during 1954 and would work out to Re. 0·140 in future.

(iii) *Conversion charges including depreciation.*—This includes power and fuel, labour, repairs, maintenance and consumable stores, establishment, overheads and depreciation. The estimate for the future for these items has been based on actual expenditure on each item during the year 1954 after making adjustments for the larger output in future. Depreciation is not shown separately as the actual depreciation pertains only to a portion of the machinery which is owned by the company whereas much of the equipment has been taken on hire and rent is paid.

(iv) *Interest on working capital and return on block.*—Interest on working capital has been allowed at 4½ per cent. on an amount equivalent to 4 months' cost of production. Return on block has been allowed at 10 per cent. on the total original value of the block which amounted to Rs. 1·21 lakhs in 1954 while it is estimated to amount to Rs. 1·226 lakhs in future inclusive of minor additions.

10.3. We have stated in paragraph 10.2.(ii) that the amount recovered by way of refund of duty was not taken into account in estimating the cost of raw materials. The quantum of refund per lb. amounts to Re. 0·140 in our estimates. If this is also taken into account, the estimated future fair ex-works price of moulding powder will amount to Rs. 0·921 per lb. or Re. 0-14-9 per lb.

C.i.f. price and landed cost of imported phenol formaldehyde moulding powder.

11. Particulars of c.i.f. prices and landed costs of imported phenol formaldehyde moulding powder obtained from Collectors of Customs and leading importers are given in Appendix III. This information was placed before the various interests concerned at the public inquiry when we were informed that of late there has been a downward trend in the prices of phenol formaldehyde moulding powder. We have, therefore, taken into account quotations for imports of moulding powder furnished by the All-India Plastics Manufacturers' Association. These

quotations relate to types of moulding powder which are comparable to the indigenous product, and were as follows:

	(per lb) Rs. as. p
From Czechoslovakia c.i.f. Indian port	0 11 10
From United Kingdom f.o.b. port	0 13 9
From Germany f.o.b. port	0 11 10

Supplies from Czechoslovakia are not readily available. We have, therefore, selected the last named quotation from Germany for comparison with the fair ex-works price of indigenous moulding powder. The f.o.b. price of Re. 0-11-10 will result in a c.i.f. price of Re. 0-12-9 per lb.

Comparison of fair ex-works prices of indigenous phenol formaldehyde moulding powder with landed cost of imported product.

12. The following table shows the comparison of the fair ex-works prices of indigenous phenol formaldehyde moulding powder with the landed cost of comparable material from Germany :—

On the basis of fair ex-works price of Re. 1-1-0, vide *statement in paragraph* 10·1

	Rs. as. p.
1. C.i.f. price	0 12 9
2. Clearing charges	0 0 2
3. Landed cost without duty	0 12 11
4. Fair ex-works price	1 1 0
5. Difference between fair ex-works price and landed cost without duty (4)—(3)	0 4 1
6. Difference as percentage of the c.i.f. price	32%

On the basis of a fair ex-works price of Re. 0-14-9, vide *paragraph* 10.3

	Rs. as. p.
1. C.i.f. price	0 12 9
2. Clearing charges	0 0 2
3. Landed cost without duty	0 12 11
4. Fair ex-works price	0 14 9
5. Difference between fair ex-works price and landed cost without duty (4)—(3)	0 1 10
6. Difference as percentage of the C.I.F. price	14·38%

B. Electrical Accessories

Raw materials including moulds.

13.1. The raw materials required for the manufacture of electrical accessories are phenol formaldehyde moulding powder and extruded sections such as rods, tubes, sheets and strips made of non-ferrous metals. We have already dealt with the question of phenol formaldehyde moulding powder in Section "A" above. Extruded sections of non-ferrous metals consisting mostly of rods, tubes, sheets and strips made of brass are required for the production of inserts for electrical accessories. At the time of the Tariff Board's inquiry in 1949, most of the brass inserts were imported. Subsequently, many of the well-established firms have set up their own machinery for the manufacture of brass inserts from extruded sections partly of indigenous origin, and the rest imported. There are only two sources of indigenous supply of extruded brass tubes, rods and strips, namely, the Ordnance Factory, Katni and the National Pipes and Tubes Co. Ltd., Calcutta. The manufacturers complained that the price of the Katni material was less than that of the Calcutta material but supplies offered by Katni were very inadequate. We are informed that the Ordnance Factory refuses to accepts orders from manufacturers who are therefore obliged to buy the material from dealers in the open market, always at high prices. It was stated that the prices charged by the dealers in Calcutta were as high as Rs. 300 per cwt. while the price charged by the Ordnance Factory at Katni was Rs. 225 per cwt. Moreover, there were wide fluctuations in the market resulting from changes in price and supply position of copper in the world market. We understand that the Ordnance Factory at Katni has the capacity to supply the requirements of this industry and that establishment of direct dealings with the manufacturers would result in the elimination of middle men's profits and fluctuations in prices. We recommend that the Ministry of Defence should examine the possibility of making available directly to the manufacturers of electrical accessories their requirements of extruded brass rods, tubes and sheets from the Ordnance Factory at Katni at reasonable prices.

13.2. Moulds required for the electrical accessories industry are mostly imported. In its Report in 1949 the Tariff Board recommended that in view of the necessity for standardisation of plasticware and rationalising its production, particularly in respect of all industrial requirements like electrical accessories, the scheme recommended by the Panel on Plastics and Celluloid Industries for establishing a central mould making shop as part of the proposed machine tool factory should receive early and favourable consideration. This question was taken up by Government with the Hindustan Machine Tools Ltd., Bangalore in 1953 when the services of an expert for the plastics industry were also obtained under the auspices of the United Nations. It was found that the Hindustan Machine Tools Ltd., were already fully busy with their own work and could not undertake the manufacture of moulds for the plastics industry. It was estimated that if a separate Central Tool Room were set up for the manufacture of moulds, the machinery only would cost about Rs. 9 lakhs and its operation would entail considerable overhead expenditure. We understand that there are about 10 to 12 units in the plastics industry who have facilities for making moulds. Most of the simple moulds and certain complicated moulds are now being manufactured locally. This, however, results in a large amount of

unutilized capacity in the mould making shops and excessive investment. The manufacture of moulds is a specialised job requiring elaborate equipment, years of experience and technical know-how. No single firm in the plastics industry would at present be in a position to obtain the services of highly qualified experts and to maintain qualified staff for designing of moulds. This matter was discussed at the public inquiry and it was agreed that it would be very desirable to establish a central mould making organization with foreign collaboration equipped with the required machinery and in charge of experts who will be able to make moulds and supply them to the industry. The demand for moulds from the plastics industry may not be very large at present but such a central mould making shop would be able to serve the needs of several industries which require precision moulds to be made in the country without dependence on foreign suppliers. We recommend that Government should enquire into the demand for moulds from different industries and, after fuller investigation, formulate a scheme for setting up a central mould making organisation.

13.3. The manufacturers represented to us that they were handicapped by a notification dated 25th August 1954 issued by the Central Board of Revenue regarding classification of moulds for the purpose of assessment of duty.' Subsequent to the notification they have to pay duty on imported moulds at the rate of 31¼ per cent. *ad valorem* while prior to the notification, moulds were assessed to duty at 5¼ per cent. *ad valorem* under Indian Customs Tariff Item No. 72(3) which is as follows:—

> "Component parts of machinery as defined in Items Nos. 72, 72(1) and 72(2), namely, such parts only as are essential for the working of the machine or apparatus and have been given for that purpose some special shape or quality which would not be essential for their use for any other purpose but excluding small tools like twist drills and reamers, dies and taps, gear cutters and hacksaw blades:
>
> "Provided that articles which do not satisfy this condition shall also be deemed to be component parts of the machine to which they belong if they are essential to its operation and are imported with it in such quantities as may appear to the Collector of Customs to be reasonable."

In August 1954, the Central Board of Revenue notified the Collectors of Customs that the term "small tools" occurring in I.C.T. item No. 72 (3) will apply to such tools as are worked with machine tools. Accordingly, moulds required in the plastics industry are classified as "small tools" and excluded from the I.C.T. item No. 72(3). Consequently they are classified under Indian Customs Tariff Item No. 71, which is defined as follows:—

> "Hardware, ironmongery and tools, all sorts not otherwise specified, including incandescent mantles but excluding machine tools and agricultural implements."

We understand that the appeal made by the manufacturers is being examined by the Central Board of Revenue. This would be a matter of interpretation and will affect moulds required for all industries. So far as moulds required for the plastics industry are concerned, the Tariff Board had already stressed the importance of manufacture of such moulds within the country and we have suggested

the steps which should be taken to establish this industry in the country. In view of this, we would, on principle, favour the charging of higher rates of duty on moulds. Any decision to lower the rates will act as disincentive to the establishment of an industry to manufacture moulds within the country and is to be deprecated.

Rated capacity and production.

14.1. At the time of the last inquiry in 1949 the Tariff Board did not find it possible to arrive at an accurate estimate of the rated capacity and actual production of electrical accessories in the country. Since then, some more units have taken up the production of electrical accessories and the industry can now claim to have certain units which are well established in business and can produc electrical accessories of high quality. Production of electrical accessories has been on the increase as seen from the following statement giving the annual rated capacity and actual production of electrical accessories during the years 1953, 1954 and 1955 as furnished by 18 units in the industry.

(Figures in gross)

Serial No.	Name of producer	Present annual capacity on single shift basis	Actual production		
			1953	1954	1955
1	2	3	4	5	6
1	Indian Plastics Ltd., Bombay	7,000	2,414	2,667	3,680
2	Kersons Manufacturing Co. of India Ltd., Bombay	17,100	6,014	7,341	6,098
3	Khosla Plastics, Poona	10,000	1,630	2,746	4,756
4	Kay Engineering Co., Kapurthala	24,700	3,722	5,343	8,489
5	Swadeshi Industries Ltd., Calcutta	6,000	4,130	6,080	8,925
6	Bharat Electrical Mfg. Co. Ltd., Sihore	8,100	790	17	1,045
7	Sri Lakshmana Plastic Works, Tanjore	4,500	111	153	75
8	Plastic Products Ltd., Kanpur	2,100	539	218	603
9	India Moulding Co., Calcutta	3,000	115	165	229*
10	Osham Industries, Bombay	4,800	3,265	3,948	7,254
11	General Electrical Industries, Bombay†	3,200	918	2,340	3,285
12	India Sales and Service Ltd., Banaras	6,200	2,646	3,143	5,720
13	India Reconstruction Corporation, Kanpur	2,500	2,925	3,405	2,642
14	Government Electric Factory, Bangalore	..	731	857	376
15	Plastella (Formerly Universal Plastics), Bombay	..	7,339*	Nil.	Nil.
16	Philips Electric Co. (India) Ltd., Calcutta‡	..	411*	594*	2,144*
17	Rubako Industries, Bombay	..	136*	63*	188*
18	Hindustan General Electric Corporation Ltd., Calcutta	12,500*	..	85*	1,349*
	TOTAL	1,11,700	37,836	39,165	56,858

* Figures furnished by the Development Wing of the Ministry of Commerce and Industry.

† In addition to the above, they have capacity to produce 12,000 gross of spare covers for switches and the actual production of the same was 12,000 gross in 1954 and 3,280 gross in 1955.

‡ Their production figures include those for cabinets, knobs and strips.

14.2. We are informed that in addition to the above 18 units, there are many small scale producers who are engaged in the manufacture of electrical accessories. No information, however, is available regarding their rated capacity and actual production. We understand that these units utilise only indigenous phenol formaldehyde moulding powder and therefore in order to make a rough assessment of their production, we obtained information from the producers of phenol formaldehyde moulding powder regarding their sales to different customers engaged in the manufacture of electrical accessories. The sales aggregated to 3,35,000 lbs. and, if it is assumed that all of the material was used in the manufacture of electrical accessories, the resultant figure of their production would be about 33,000 gross. Making allowances for diversion of some moulding powder for the manufacture of other sundry products and for possible variations in the conversion factor for equating pounds of moulding powder used to the quantity in gross of electrical accessories produced, we arrive at a fair idea of the magnitude of production in this section of the industry which may be assessed at 30,000 gross per annum.

Domestic demand.

15. No assessment of demand for electrical accessories was made by the Tariff Board in its Report in 1949. In the course of the present inquiry we have received estimates of current demand ranging from 57,000 gross to 62,500 gross per annum. Production in the organised units (*vide* statement in paragraph 14.1) during the last three years was 37,836 gross in 1953, 39,165 gross in 1954 and 56,858 gross in 1955. To this has to be added the production in those units regarding which statistics are not available and which has been assessed at 30,000 gross (*vide* paragraph 14·2 above). During these same years, imports of electrical accessories were valued at Rs. 8·81 lakhs in 1953, Rs. 7·55 lakhs in 1954 and Rs. 6·97 lakhs in 1955. Statistics of quantity of electrical accessories imported are not recorded separately but it can be assumed that the quantity equivalent to the value of imports during these years would be (on an average) of the order of 10,000 gross per annum. Based on the above information regarding the production and imports of electrical accessories, we estimate that the demand is about 100,000 gross per annum at present and may be up to about 150,000 gross per annum in the next three years.

Quality.

16.1. The Indian Standards Institution has finalised Indian Standards for certain electrical accessories, namely, two pin plugs and socket outlets without earthing connections and ceiling roses. Three more standards, including that for single pole tumbler switches, have been drafted and are expected to be finalised shortly while those in respect of some more items are on the programme of the Institution.

16.2. The industry consists of certain well established units who are equipped with up-to-date moulding machinery and maintain expensive moulds as also machines for the manufacture of metallic inserts the quality of which can be controlled. They also have arrangements for elaborate supervision and inspection. These units produce accessories in accordance with recognised standards and get samples of their products tested at the Alipore Test House, Calcutta. There are, besides, a larger number of units operating on small scale, with equipment which is not adequate for quality production where cheap and sub-standard products are being produced

Stocks of indigenous electrical accessories in the country consist of both types of products, sales of which take place at different price levels. Although no specific complaints have come to our notice in regard to the quality of indigenous electrical accessories, we feel that with the achievement of a measure of self-sufficiency in indigenous production, the stage has been reached when positive steps should be taken to achieve standardisation of quality and to progressively eliminate the tendency to compete on the basis of prices at the expense of quality. A superficial or visual examination of an electrical accessory will not disclose the durability or quality of the product and consumers therefore require some sort of a marking on the product as a guide. Such marking will also act as incentive to manufacturers of standard products to maintain the superiority of quality which they have achieved.

16.3. We, therefore, recommend that manufacturers of electrical accessories should extend their co-operation to the Indian Standards Institution for speedy finalisation of standard specifications for all items of accessories which are being manufactured in the country. We also recommend that after the standards have been finalised, they should apply to the Institution for inclusion of their products among those to be stamped with the ISI mark in accordance with the provisions of the Certification Marks Act.

Imports and import control policy.

17.1. *Imports.*—Figures relating to imports of electrical accessories made of plastics are not separately recorded in the Accounts Relating to the Foreign (Sea, Air & Land) Trade and Navigation of India. The Director General of Commercial Intelligence & Statistics has been furnishing us with information relating to the value of imports of electrical accessories in his monthly returns relating to protected commodities. The value of imports during the last three years were Rs. 8,80,656 in 1953, Rs. 7,55,236 in 1954 and Rs. 6,97,166 in 1955.

17.2.1. *Import control policy.*—Electrical accessories made of phenol formaldehyde moulding powder are classified under Serial No. 39(c)—Part II of the Import Trade Control Schedule which covers the following articles namely, "Industrial and street lighting fittings and flood lights, tumbler switches, ceiling roses, plugs and sockets, porcelain cutouts and lamp holders, conduit accessories, bell wiring accessories (excluding wires)". During January-June, 1953, licences were granted to established importers to the extent of 25 per cent. of half of their best year's imports. The quota was calculated on the imports of all the items under Serial No. 39(c) but only 10 per cent. of the face value of the licence was allowed to be utilised for the import of brass lamp holders, bakelite electrical accessories, namely, plugs, sockets, ceiling roses, lamp holders, tumbler switches and cutouts. During the second half of 1953 and the first half of 1954, the policy remained the same as in the previous period except that the above mentioned electrical accessories were allowed to be imported up to 10 per cent. of the face value of the licences or up to Rs. 750 whichever was higher. Since July, 1954, the quota for established importers has been increased from 25 to 30 per cent. while all the other conditions have remained the same as before.

17.2.2. It has been brought to our notice that there have been cases of circumvention of import control as a result of certain loopholes in the import control policy. We were informed that tumbler

switches of less than 10 amperes capacity with metal covers are allowed to be imported more freely than bakelite tumbler switches. As a result switches having porcelain base and bakelite knob and fitted with very cheap and tawdry aluminium covers are reported to have been imported in larger numbers. The switches were placed on the market as imported switches after replacing the metal covers by bakelite covers manufactured locally. We were further informed that switches having porcelain base with metal cover are assessed to duty under Item No. 73(1) of the Indian Customs Tariff which includes electrical instruments, apparatus and appliances other than those specified in Item No. 73(16) which is the protected item. Duties are charged on item No. 73(1) at the standard rate of 37½ per cent. and preferential rate of 25 per cent. *ad valorem*, as against the rates of 60 per cent. standard and 50 per cent. preferential on item No. 73(16). The advantage of 22½ per cent. in the standard rate of duty and 25 per cent. in the preferential rate of duty which has been availed of by importers of the type of imported switches referred to above cannot be justified as the indigenous manufacturing activity involved in their conversion into saleable quality products embraces only the manufacture of a bakelite cover. Also, after such conversion, the switches are marketed as foreign made products as their foreign origin is indicated in the porcelain base. We would like to invite the attention of Government to this matter which is not merely an obvious instance of circumvention of import control but has also resulted in some loss of customs revenue.

Existing rates of duty.

18. Electrical accessories made of plastics are assessed to duty under item No. 73(16) of the First Schedule to the Indian Customs Tariff. The relevant extract from the fortieth issue of the Indian Customs Tariff Schedule is given below:—

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective rates of duty
				The U.K.	A British colony	Burma	
73(16)	Electrical accessories made of plastics, such as wall plugs, switches ceiling roses and lamp holders—						
	(*a*) of British manufacture,	Protective.	50 per cent. *ad valorem*.	..	..	..	December 31, 1956.
	(*b*) not of British manufacture.	Protective.	60 per cent. *ad valorem*.	..	..	..	December 31, 1956.

NOTE.—Under Government of India, Ministry of Finance (Revenue Division), Notification No. 114-Customs, dated the 16th July 1955, electrical accessories made of plastics, such as wall plugs, switches, ceiling roses and lamp holders, designed for use in circuits of ten or more than ten amperes, are exempt from the payment of so much of the customs duty leviable hereon as is in excess of 5½ per cent, *ad valorem*.

Commission's estimate of costs of production and fair ex-works prices of indigenous electrical accessories.

19.1. One of our Cost Accounts Officers has examined the cost of production of selected items of electrical accessories at the factory of Kersons Manufacturing Co. of India Ltd., Bombay and has submitted to us his Cost Report which is forwarded as a separate confidential enclosure to this Report. The following statement gives the breakdown under main heads of the actual costs of production per gross of selected items during the year ended March, 1955 and our estimate of future costs of production and fair ex-works prices:—

(Figures in Rs. per gross)

Particulars	Actuals during 1954-55				Estimate for future			
	Lamp holders	Ceiling roses	Wall sockets	Plugs 2 Pin	Lamp holders	Ceiling roses	Wall sockets	Plugs 2 Pins
1	2	3	4	5	6	7	8	9
1. Raw materials	21·845	29·910	22·504	19·192	21·267	29·398	23·351	18·857
2. Labour . .	10·187	10·254	14·283	8·337	7·367	7·349	10·142	5·908
3. Other conversion charges	12·634	11·369	16·775	9·542	8·573	7·202	10·854	6·071
4. Depreciation	4·871	4·903	6·830	3·987	4·085	4·075	5·624	3·276
5. Packing .	0·710	0·675	0·675	0·685	0·710	0·675	0·675	0·685
6. Cost of production . .	50·247	57·111	61·067	41·743	42·002	48·699	50·646	34·797
7. Interest on working capital .	..	..	..	..	0·569	0·669	0·675	0·473
8. Return on block	..	..	..	..	3·646	3·001	3·001	2·401
9. Fair ex-works price . .	..	..	..	..	46·217	52·369	54·322	37·671
10. Fair ex-works price per dozen	..	..	..	..	3·851	4·364	4·527	3·139
Or Rs. per dozen . .					3 13 7	4 5 10	4 8 5	3 2 3

19.2. The following factors have been into account in estimating the fair ex-works prices for the future.

(i) *Selection of items for costing.*—The main items of electrical accessories produced in the country are tumbler switches, lamp holders, ceiling roses, wall sockets and plugs. Up to the time of the investigation, Kersons had not started production of tumbler switches and therefore the cost of production was estimated only for lamp holders (cord grip type), ceiling roses (2 plate type), wall sockets (2 pin) and plugs (2 pin).

(ii) *Production.*—The annual capacity of the factory is estimated at 17,000 gross of bakelite electrical accessories and 8,000 gross of accessories made of brass. The production during the period selected

for investigation of cost of production was 7,500 gross of electrical accessories made of bakelite and 4,500 gross made of brass. In order to arrive at the future costs of production, we have estimated, in consultation with the representatives of the firm, a production of 14,500 gross of electrical accessories made of bakelite and 5,000 gross made of brass. The former figure includes production of tumbler switches which were not being produced at the time of the cost investigation. It has further been assumed that the production of each of the selected items would be 4,000 gross lamp holders, 1,500 gross ceiling roses, 1,000 gross wall sockets and 1,500 gross plugs.

(iii) *Raw Materials.*—Phenol formaldehyde moulding powder is charged in the form of tablets and its consumption has been estimated on the basis of the weight of the tablets after making a provision to cover loss in tabletting and rejections in processing. The price for the future is based on the latest imports from Germany. Brass parts are manufactured within the factory from rods, tubes, sheets and strips. The requirements have been calculated based on the specifications and type of material used. The latest prices have been adopted for brass sections.

(iv) *Labour.*—This item includes expenditure on productive labour which consists of basic wages and piece work wages as well as on indirect labour.

(v) *Other conversion charges.*—This item includes power and fuel, repairs and maintenance, consumable stores, establishment, overheads and credit for recoveries. Expenses under each of these items were analysed for the years 1952-53, 1953-54 and 1954-55 and depending upon the varying and non-varying nature of these expenses suitable adjustments have been made to account for variation in the volume of production in future.

(vi) *Depreciation.*—Depreciation has been calculated at income-tax rates on the written-down values.

(vii) *Interest on working capital and return on block.*—Interest on working capital has been allowed at 4½ per cent. on an amount equivalent to 4 months' cost of production and return on block has been allowed at 10 per cent. on a value of 5·904 lakhs estimated as being the original value of the block required for the manufacture of the selected items of bakelite electrical accessories.

C. i. f. prices and landed costs of imported electrical accessories.

20. Imports of electrical accessories made of plastics are subject to restrictions and only stray consignments are noted of those types of electrical accessories which are produced in large quantities in India such as switches, ceiling roses, wall sockets, plugs and lamp holders. We have, therefore, not been in a position to obtain information regarding the recent c.i.f. prices and landed costs either from the Collectors of Customs or from importers of electrical accessories. In response to our enquiry, India's commercial representatives in Japan, West Germany, Italy and the U. K. have furnished to us f.o.b. prices of electrical accessories in their respective countries. After discussions with the interests concerned at the public inquiry, it was decided that as the quality of the electrical accessories manufactured by Kersons Manufacturing Co. of India Ltd. (the firm selected for investigation of costs of production) could be compared with that of electrical accessories imported from the U.K., prices from that source

should be adopted for the purpose of comparison of the fair ex-works price of indigenous electrical accessories with the landed costs of imported articles. The products of the firm selected for costing do not, because of their superior quality, face competition from articles imported from other sources in spite of the cheapness of the latter. We have, therefore, decided to adopt for the purpose of comparison, recent quotations of f.o.b. prices furnished to us during the public inquiry for imports of electrical accessories from the U.K. The quotations of f.o.b. prices and the estimated equivalent c.i.f. prices are given in the following statement :—

	F.o.b. prices per dozen	Equivalent c.i.f. price
	Sh. d.	Rs. a. p.
1. Lamp holders	6 0	4 4 8
2. Ceiling roses	8 4	6 0 4
3. Wall sockets	7 11	5 10 11
4. Plugs	6 0	4 4 8

Comparison of fair ex-works prices of indigenous electrical accessories with landed costs of imported articles.

21. The following table shows the comparison of the fair ex-works prices of the selected items of electrical accessories with the landed cost of comparable articles from the U.K. :—

(prices per dozen articles)

	Lamp holders	Ceiling roses	Wall sockets	Plugs
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. C.i.f. price	4 4 8	6 0 4	5 10 11	4 4 8
2. Clearing charges	0 3 0	0 3 0	0 3 0	0 3 0
3. Landed cost without duty	4 7 8	6 3 4	5 13 11	4 7 8
4. Fair ex-works price	3 13 7	4 5 10	4 8 5	3 2 3
5. Difference between the fair ex-works price and landed cost without duty (4)—(3)	(—)0 10 1	(—)1 13 6	(—)1 5 6	(—)1 5 5

It will be noted that the fair ex-works price of the items is lower in each case than the landed cost without duty of the comparable imported article.

C. Buttons made of Plastics

22.1. Plastic buttons are made on compression moulding presses by using phenol formaldehyde moulding powder, urea formaldehyde moulding powder or melamine formaldehyde moulding powder. They are also made on injection presses by using polystrene. The organized section of the buttons industry is engaged at present in the manufacture of plastic buttons

Raw material.

mostly from urea formaldehyde moulding powder. Urea formaldehyde moulding powder is not produced in the country and the requirements of the industry are met by imports from the U.K., Italy, Germany, France etc. Its imports are assessed to duty at present at 31¼ per cent. *ad valorem*. According to the present import control policy, established importers are allowed to import the powder to the extent of 20 per cent. of half of their best year's imports and applications from actual users are also considered. The manufacturers of buttons complained to us regarding the import control policy which allowed the validity of licences for a period of 6 months only. They suggested that licences should be made valid for one year. We understand that any delay in licensing is likely to hamper production as it is not possible to maintain stocks of urea formaldehyde moulding powder without the risk of serious deterioration in storage. We recommend that Government should examine the possibility of extending the validity of licences for one year in order that manufacturers may not be put to a financial loss resulting from loss of production due to shortage of moulding powder or deterioration in storage due to overstocking of the material.

22.2. We are informed by the Development Wing that the estimated requirement of urea formaldehyde moulding powder at present is 250 to 300 tons per annum of which about 150 tons is used in the manufacture of buttons whereas the rest is used for moulding various articles like lamp shades, tableware, toilet accessories etc. The demand is estimated to go up to about 600 tons by 1960-61. Rattanchand Harjas Rai (Plastics) Ltd., Amritsar have a plant for the manufacture of urea formaldehyde moulding powder in which experimental batches have been produced during 1954 and 1955. The firm, however, has not been able to establish commercial production because of certain technical problems as well as difficulty in marketing the product in competition with imported urea formaldehyde moulding powder. The company has arranged with a British firm engaged in the manufacture of plastics to obtain the necessary technical advice. It expects to go into commercial production towards the end of the year after the receipt of certain additional machinery and after shifting the premises of their factory to Faridabad, near Delhi. We are also informed that Praga Industries Ltd., Coimbatore have been carrying out experimental production of urea formaldehyde moulding powder and that the Indian Plastics Ltd., Bombay are taking steps to set up a plant for its production on commercial scale.

22.3. Figures of imports of urea formaldehyde moulding powder are not being recorded separately in the Accounts Relating to the Foreign (Sea, Air and Land) Trade and Navigation of India. Plans for producing this material are already afoot, and the stage has been reached when statistics relating to imports will be very necessary in deciding on the steps that may be needed to render some form of assistance to producers. We, therefore, recommend that statistics relating to imports of urea formaldehyde moulding powder should be recorded separately by the Director General of Commercial Intelligence and Statistics and the Collectors of Customs.

Rated capacity and production.

23. At the time of the last inquiry into buttons industry in 1953, there were 3 organized units engaged in the production of plastic buttons, namely, Hindusthan Plastics Ltd., Bombay, Rattanchand Harjas Rai (Plastics) Ltd., Amritsar and Praga Industries

Ltd., Coimbatore. Since then one more unit, namely, Jaga Button Industries Ltd., Coimbatore has taken up the manufacture of plastic buttons. Indian Plastics Ltd., Bombay which was producing small quantities of buttons at the time of the previous inquiry has stepped up its production since 1954. During the public inquiry we were informed that one more firm namely, New India Plastics Ltd., Bombay is engaged in the production of buttons. A statement showing the rated capacity and actual production of plastic buttons during the years 1953, 1954 and 1955 is given below:—

(Figures in gross)

Name of the producer	Present annual capacity on single shift basis	Actual production		
		1953	1954	1955
1. Hindusthan Plastics Ltd., Bombay .	600,000	259,656	224,520	278,080
2. Indian Plastics Ltd., Bombay . . .	300,000	8,541	30,743	86,644
3. Praga Industries Ltd., Coimbatore . .	2,40,000	183,071	299,135	539,003
4. Rattanchand Harjas Rai (Plastics) Ltd., Amritsar	600,000	362,430	372,287	416,152
5. Jaga Button Industries Ltd., Coimbatore .	60,000	Nil.	54,727	93,055
6. New India Plastics Ltd., Bombay . .	45,000	66,190	39,088	114,431
TOTAL .	1,845,000	879,888	1,020,500	1,427,365

We are informed that in addition to the above units, plastic buttons are produced as a subsidiary line of manufacture by some of the manufacturers of plastic goods and there is also a large amount of production in small scale and cottage units. No information is, however, available regarding production in these units.

Domestic demand.

24. The Tariff Commission in its Report on the buttons industry in 1953 estimated the demand for buttons of all sorts at 5 million gross. In the course of the present investigation we have received estimates of present demand for plastic buttons ranging from 2 million gross to 6 million gross per annum. We have obtained information regarding production of buttons in the organized section of the industry during the years 1953, 1954 and 1955 as well as the value of imports of plastic buttons during the same period. This information, however, is not sufficient to make an accurate assessment of demand for plastic buttons as we understand that there is a substantial production of plastic buttons made of polystyrene regarding which information is not available. A large number of small manufacturers are also engaged in the manufacture of buttons whose production figures are not available to us. Moreover, the demand for

one type of buttons cannot be estimated accurately as wide fluctuations are likely to take place depending upon availability and price of other types of buttons. We have, therefore, came to the conclusion that it is not possible to estimate with any degree of accuracy the demand for plastic buttons in the country.

Quality.

25. The Tariff Commission in its Report in 1953 recommended that the manufacturers should approach the Indian Standards Institution and co-operate with it in evolving standards for the different varieties of buttons. We understand from the Institution that they have been approached by the industry in this regard and that the work has been taken in hand. The only standard in use at present is the Defence Ministry's standard, IND/GS/734 which is adopted by the Director General of Ordnance Factories who is the only large scale consumer of buttons. The buttons are tested by the Technical Development Establishment, Kanpur and are found to be generally satisfactory. The defect on account of which buttons are sometimes rejected is their failure to withstand the wash wheel test No. 4 which is one of the tests included in the specification. The failure is attributed to insufficient curing during the process of manufacture. This deficiency was brought to the notice of the producers who assured us that they were using imported urea formaldehyde moulding powder of good quality, employing up-to-date moulding machinery and operating under controlled conditions and that their buttons compared quite favourably with imported urea formaldehyde buttons. They, however, complained that the prejudice against Indian plastic buttons arose as a result of the manufacture of sub-standard buttons by the unorganized section of the industry and the production of large quantities of utility buttons made of polystyrene which are brittle and liable to be deformed by the application of moderate heat. Regarding the wash wheel test No. 4, they stated that the test was too rigid for buttons made from urea formaldehyde moulding powder and that if that specification was to be rightly enforced, buttons would have to be made from phenol formaldehyde moulding powder or from melamine formaldehyde moulding powder. In the former case, however, there would be a limitation to the colours in which buttons could be produced and in the latter case the product would be more costly. These matters may be given due consideration by the Indian Standards Institution when finalising Indian standards for plastic buttons. We recommend that the Indian Standards Institution should finalise standards specifications for plastic buttons at the earliest.

Imports and import control policy.

26.1. *Imports.*—Figures relating to imports of plastic buttons are not separately recorded in the Accounts Relating to the Foreign (Sea, Air & Land) Trade and Navigation of India. The Director General of Commercial Intelligence and Statistics has been furnishing us with information relating to imports of plastic buttons in his monthly returns relating to protected commodities. The records are kept only in terms of value of imports which amounted to Rs. 16,697 in 1953, Rs. 25,766 in 1954 and Rs. 16,058 in 1955.

26.2. *Import control policy.*—Plastic buttons are classified under Serial No. 336—Part IV of the Import Trade Control Schedule which covers "Buttons, other than metal". During 1954, soft currency licences were granted to established importers to the extent of 10% of half of their best year's imports. The same policy was continued during the first half of 1955 but established importers were allowed to utilise up to 25% of the face value of their licences for imports from dollar area. During the second half of 1955 the quota was reduced to 7½% and importers were allowed to utilise up to 25% of the face value of their licences or Rs. 500, whichever was higher for imports from dollar area. The same policy is being continued during the current half year.

Existing rate of duty.

27. Buttons made of plastics are assessed to duty under Item No. 85(c) of the First Schedule to the Indian Customs Tariff. The relevant extract from the fortieth issue of the Indian Custom Tariff Schedule is given below:—

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective duty
				The U. K.	A British colony	Burma	
85.	Buttons, studs & cuff links—						
	(c) made of plastics.	Protective.	66 2/3 per cent. *ad valorem* or 12 annas per gross whichever is higher.	...	...	...	December 31st, 1956.

Commission's estimate of costs of production and fair ex-works prices of indigenous buttons made of plastics.

28.1. One of our Cost Accounts Officers has examined the cost of production of plastic buttons at the factory of the Hindustan Plastics Ltd., Bombay and has submitted to us his Cost Report which is forwarded as a separate confidential enclosure to this Report. We have discussed the cost data with the representatives of the company and have prepared our estimate of the future costs of production and fair ex-works prices of plastic buttons. The following statement gives the breakdown under main heads of the actual cost of production per gross for the year 1954 and our estimate of the fair ex-works prices in future of selected sizes of buttons made of urea formaldehyde moulding powder:—

The Hindusthan Plastics Ltd., Bombay

Statement showing the estimated cost of production of plastic buttons of sizes and types per gross during the four months ended 30th June 1955 and for future

(in Rupees per gross)

Specification of buttons	Actuals during March–June 1955						Estimate for future					
	Pant button	Coat button big	Coat button small	Shirt button 4 holes	Shirt button 2 holes	Bush coat button	Pant button	Coat button big	Coat button small	Shirt button 4 holes	Shirt button 2 holes	Bush coat button
Number of lignes . . .	22	30	22	16	16	24	22	30	22	16	16	24
1. Total cost of materials . . .	0·4680	0·8414	0·4481	0·1537	0·1564	0·4553	0·4680	0·8414	0·4481	0·1537	0·1564	0·4556
2. Direct works expenses . . .	0·1973	0·5044	0·2615	0·1780	0·2169	0·2159	0·1248	0·3324	0·1685	0·1129	0·1391	0·1337
3. Depreciation	0·0873	0·3201	0·1379	0·0905	0·1243	0·1009	0·0227	0·0834	0·0359	0·0236	0·0324	0·0263
4. Administration works overhead .	0·3719	0·4130	0·4130	0·2483	0·2479	0·3303	0·0989	0·1239	0·1239	0·0739	0·0739	0·0989
5. Packing material . . .	0·0470	0·0600	0·0600	0·0380	0·0380	0·0470	0·0555	0·0685	0·0685	0·0465	0·0465	0·0555
6. Total cost of production . . .	1·1715	2·1389	1 3205	0·7085	0·7835	1·1494	0·7699	1·4496	0·8449	0·4106	0·4483	0·7736
7. Interest on working capital . .	..	..	..	..	..	..	0·0112	0·0205	0·0121	0·0038	0·0062	0·0112
8. Return on block	..	..	..	..	..	..	0·0677	0·0848	0·0848	0·0506	0·0506	0·0677
9. Fair ex-works price	..	..	..	..	..	..	0·8488	1·5549	0·9418	0·4670	0·5051	0·8525
10. *Add* adjustment for 2nd quality at the rate of 1½ per cent. . . .	..	..	..	..	..	..	0·0127	0·0233	0·0141	0·0070	0·0076	0·0128
11. Fair ex-works price for 1st quality .	..	..	..	..	..	..	0·8615	1·5782	0·9559	0·4740	0 5127	0·8653
			..	..	..	..	0 13 9	1 9 3	0 15 3	0 7 7	0 8 2	0 13 10

28.2. The following factors have been taken into account in estimating the fair ex-works prices for future:—

(i) *Selection of items for estimation of costs.*—Costs of production have been estimated only for buttons made of urea formaldehyde moulding powder. During the period chosen for estimation of actual costs, the firm had manufactured 13 different sizes of buttons of which the following 6 types forming more than 90 per cent. of the total production, have been selected for estimation of costs:—

Description	Number of lignes
Pant buttons small	22
Coat buttons big	30
Coat buttons small	22
Shirt buttons four holes	16
Shirt buttons two holes	16
Bush coat buttons (fish eye)	24

(ii) *Production.*—The company is engaged in the manufacture of a variety of articles made of plastics both by compression moulding and by injection. In the compression moulding section, the production of buttons is the major activity but some of the machines are used for production of other articles in phenol formaldehyde moulding powder and in urea formaldehyde moulding powder. The production of the selected types of buttons during the period chosen for investigation of actual costs, namely, March-June 1955 was 61,393 gross. The production of the company was affected by fire during the end of 1954 and it was resumed early in 1955. The company expects to step up its output to a considerable extent in future. In consultation with the representatives of the company, therefore, we have adopted a figure of 900,000 gross buttons for estimating the cost of production in the future. The production of different sizes of buttons have been assumed to be as follows:—

Description	Number of lignes	Production in thousand gross
Pant buttons small	22	270
Coat buttons big	30	30
Coat buttons small	22	60
Shirt buttons 4 holes	16	135
Shirt buttons 2 holes	16	135
Bush coat buttons (fish eye)	24	270

(iii) *Raw materials.*—The quantity of urea formaldehyde moulding powder required for the production of different types of buttons was estimated in consultation with the representative of the firm on the basis of actual usage after allowing for process losses which compare well with the position in other countries. The price of urea formaldehyde moulding powder has been based on actual purchases during the period for which costs were estimated. For estimation of future costs the same quantity and price of colours has been assumed as adopted during the period for which actual costs were worked out.

(iv) *Direct works expenses.*—This item includes power, direct wages, repairs and maintenance, consumable stores and works establishment. The expenditure under each of these heads has been estimated on the basis of actuals and has been distributed on different types of buttons on the basis of process costs in various departments, namely, colouring, tabletting, compression moulding, broaching, tumbling and polishing and inspection & packing.

(v) *Depreciation.*—The total depreciation on the written down value of the assets allocated to manufacture of buttons which came to Rs. 25,440 has been distributed over the various types of buttons on the basis of press-hours required for each type.

(vi) *Administration and general overheads.*—Expenditure under this item in future has been estimated after making due allowance for the increase in volume of production on the basis of actual expenditure during 1953 and 1954 under each of the various items included under this head.

(vii) *Interest on working capital and return on block.*—Interest on working capital has been allowed at 4½% on an amount equivalent to 4 months' cost of production. Return on block has been allowed at 10% on the original value of the fixed assets computed at Rs. 5·784 lakhs as being allocated to the manufacture of buttons by compression moulding.

(viii) *Adjustment for second quality buttons.*—Provision has been made by an addition of 1½ per cent. of the fair ex-works price of first and second quality buttons in order to compensate the company for the loss incurred in sales of second quality buttons.

C. i. f. prices and landed costs.

29. Particulars of c.i.f. prices and landed costs of imported plastic buttons obtained from Collectors of Customs and leading importers are given in Appendix IV. This information was placed before the various interests concerned during the public inquiry when the producers contended that the main source of competition was Japan and that the recent quotations for imports of buttons from Japan should form the basis of comparison for the purpose of assessment of the quantum of duty required to protect the industry. We, therefore, obtained from them the following quotations of c.i.f. prices of buttons which we have adopted for the purpose of comparison with the fair ex-works prices of indigenous plastic buttons:—

	Description	Lignes	C.i.f. price per gross
			Rs. a. p.
1.	Pant buttons	22	0 5 6
2.	Coat buttons	32	0 12 6
3.	Coat buttons	22	0 5 6
4.	Shirt buttons	16	0 3 6
5.	Bush coat buttons	24	0 6 3

30. The following table shows the comparison of the fair ex-works prices of indigenous buttons made of urea formaldehyde moulding powder with the landed costs of comparable buttons from Japan:—

Comparison of fair ex-works prices of indigenous plastic buttons made of urea formaldehyde moulding powder with the landed costs of imported buttons.

(Per gross)

Description	Pant buttons	Coat buttons big	Coat buttons small	Shirt buttons	Bush coat buttons
Number of lignes	22	*30	22	16	24
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. C.i.f. price .	0 5 6	0 12 6	0 5 6	0 3 6	0 6 3
2. Clearing charges .	0 0 3	0 0 6	0 0 3	0 0 3	0 0 3
3. Landed cost without customs duty .	0 5 9	0 13 0	0 5 9	0 3 9	0 6 6
4. Fair ex-works price	0 13 9	1 9 3	0 15 3	0 7 11	0 13 10
5. Diffeence between the fair ex-works price and landed cost without duty (4)—(3) . .	0 8 0	0 12 3	0 9 6	0 4 2	0 7 4
6. Difference as a percentage on the C. i. f. price .	145·45	98·00	172·73	119·05	117·33

* The comparison is between indigenous buttons of size 30 with imported size 32 as directly comparable data were not available.

31. The schemes of protection for the three different sections of the plastics industry under review is given below :— **Schemes of protection.**

31.1. *Phenol Formaldehyde Moulding Powder.*—This section of industry has made substantial progress during the period of protection. Production which was of the order of 125 tons in 1949 has increased to more than 700 tons during 1955 thereby meeting almost the whole of the requirements of phenol formaldehyde moulding powder for general purposes and a portion of the requirements for manufacture of electrical accessories. After the establishment of a second unit there is competition amongst producers and we find from the information furnished to us by the producers and consumers of moulding powder that the industry has brought down its selling price from time to time. The industry is still dependent upon imported raw materials but schemes for their manufacture are under consideration. Fresh investment has to be undertaken by the units engaged in production to instal equipment to carry out standard tests and to diversify production so as to manufacture different grades of material to meet the various requirements of consumers. The industry has justified its claim for protection and

would be in a position to strengthen itself further if protection is continued for some more time. In paragraph 12 above we have estimated that the duty required to equate the fair ex-works price of the indigenous phenol formaldehyde moulding powder to the landed cost of imported material is 32 per cent. *ad valorem* if no account is taken of the refund of duty on phenol, formaldehyde and hexamine, and 14·38 per cent. if the duty which is being refunded is taken into account. As against these rates of duties the existing rate is 31½ per cent. *ad valorem*. At present the refund of duty is allowed on imports of 3 chemicals to manufacturers of phenol formaldehyde moulding powder whose production is more than 200 tons per annum. This direct form of assistance has proved helpful to the industry in keeping its cost down during the developmental period, and maintaining its selling price at a level competitive to the price of the imported material. It has also stabilised the quality of the product by concentrating production in the hands of the larger producers. We therefore recommend that the existing concession whereby duty on phenol, formaldehyde and hexamine is being refunded provided the annual production of moulding powder is not less than 200 tons be continued during the period of protection recommended below. Although the quantum of duty indicated after allowing for refund of duty on raw materials comes to 14·38 per cent. we are not in favour of reducing it below the existing level of 31½ per cent. *ad valorem* for the following reasons: (a) any such reduction will only result in encouraging indiscriminate applications for imports of foreign moulding powder, which is certainly not in the interests of the country nor in the interests of the moulding powder manufacturing industry, (b) it may be necessary for indigenous manufacturers of moulding powder to offer their product in the future at a price slightly lower than that of imported powder to counteract the preference on the part of consumers to the latter, and (c) as the indigenous manufacture of moulding powder is established only at Bombay, provision has to be made for freight in regard to supplies in other parts of the country where the foreign product can be landed at the same price as in Bombay. It is to be noted in this connection that prior to protection the revenue duty on phenol formaldehyde was 30 per cent. In the circumstances we recommend that protection to phenol formaldehyde moulding powder may be continued at the existing rate of duty of 31½ per cent. *ad valorem* for a period of three years *i.e.*, till 31st December, 1959.

31.2. *Electrical Accessories.*—This section of the industry has made good progress during the period of protection and a few of the manufacturers have established well equipped factories to produce articles which are comparable in quality to the best of imported articles. From the information furnished to us by the manufacturers of electrical accessories regarding their selling prices we find that prices are maintained at reasonable levels as a result of keen competition in the country amongst manufacturers of high grade electrical accessories as well as that from those units which manufacture somewhat inferior and cheaper products. It is observed from the comparison of the fair ex-works prices of indigenous electrical accessories and the landed costs without duty of imported articles given in paragraph 21 above that the difference between the two is in favour of the industry and that it would be in a position to face competition from imported electrical accessories without any assistance. Any duty which may be charged on imports for revenue purposes would act as

an additional safeguard to the industry. We, therefore, recommend that protection to this section of the industry should be discontinued after 31st December, 1956.

31.3. *Plastic Buttons.*—This section of the industry has made satisfactory progress during the period of protection. During the last two or three years imports of plastic buttons have been negligible and the requirements have been met by indigenous buttons. The industry has not only been able to step up production to meet the entire requirements of the country but has also brought down its selling price indicating the presence of sufficient internal competition. The industry is still depending on imported raw material, namely, urea formaldehyde moulding powder but schemes are already in hand to produce it from imported raw materials to begin with. There are also plans for the production of the basic chemicals required in the manufacture of moulding powder, namely, urea and formaldehyde. When these plans are implemented the industry will be entirely independent of imports. In paragraph 30 above, we have estimated that the following duties would be required to equate the fair ex-works prices of indigenous buttons to the landed costs of buttons from Japan:—

	Pant Buttons	Coat Buttons Big	Coat Buttons Small	Shirt Buttons	Bushcoat Buttons
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Amount of duty per gross . . .	0 8 0	0 12 3	0 9 6	0 4 2	0 7 4
Duty expressed as percentage of C.i.f. price . . .	145·45	98·00	172·73	119·05	117·33

The existing rate of protective duty is 66⅔ per cent. *ad valorem* or 12 annas per gross whichever is higher. This would indicate that at the existing rates of duty the industry would be inadequately protected by the *ad valorem* duty and more than adequately protected by the specific duty. With the alternative specific duty of 12 annas per gross in existence, the *ad valorem* duty of 66⅔ per cent. does not become operative except when the c.i.f. price is more than Re. 1-2-0 per gross, which is not the case with any of the types of buttons listed in the table given in para. 30 above.

We, therefore, do not find it necessary to increase the quantum of *ad valorem* duty so long as the specific duty is maintained at the existing level of 12 annas per gross. Specific duty at this rate may not afford sufficient protection to the sizes above 30 lignes but this deficiency will be more than compensated for in the smaller sizes which are produced in bulk. We, therefore, recommend that protection to this section of the industry should be continued for a period of 3 years, *i.e.*, till 31st December 1959 at the existing rate of duty, namely, 66⅔ per cent. *ad valorem* or 12 annas per gross whichever is higher.

32. Our conclusions and recommendations are summarised as follows:—

Summary of conclusions and recommendations.

(1) The scope of the present inquiry into the plastics industry is restricted to phenol formaldehyde moulding powder, electrical accessories made of plastics and buttons made of plastics.

[Paragraph 3.2]

(2) The demand for phenol formaldehyde moulding powder is estimated at 1,000 tons at present and may go up to about 1,500 tons in the next three years.

[Paragraph 6]

(3) There is justification in the claim made by the manufacturers of electrical accessories that they should be allowed to import moulding powder, as at present, so long as there is no assured supply of high quality moulding powder which is certified as conforming to recognised standards.

[Paragraph 7.3]

(4) The Indian Standards Institution should complete at the earliest the work of formulation of standards for phenolic moulding materials.

[Paragraph 7.4]

(5) The manufacturing units should take immediate steps to equip themselves with facilities for testing moulding powder according to standards methods.

[Paragraph 7.4]

(6) The phenolic moulding powder industry should improve and maintain the quality of its product and should approach the Indian Standards Institution for acceptance of its product under the Certification Marks Act.

[Paragraph 7.4]

(7) The Ministry of Defence should examine the possibility of making available directly to the manufacturers of electrical accessories their requirements of extruded brass rods, tubes and sheets from the Ordnance Factory at Katni at reasonable prices.

[Paragraph 13.1]

(8) It is desirable to establish a central mould making organisation with foreign collaboration equipped with the required machinery and in charge of experts who will be able to make moulds and supply them to the industry. The demand for moulds from the plastics industry may not be very large at present but such a central mould making shop would be able to serve the needs of several industries which require precision moulds to be made in the country without dependence on foreign suppliers. Government should inquire into the demand for moulds from different industries and after fuller investigation formulate a scheme for setting up a central mould making organization.

[Paragraph 13.2]

(9) The demand for electrical accessories is about 100,000 gross per annum at present and may go up to 150,000 gross per annum in the next three years.

[Paragraph 15]

(10) The manufacturers of electrical accessories should extend their co-operation to the Indian Standards Institution for speedy finalisation of standard specifications for all items of electrical accessories which are manufactured in the country. After the standards have been finalised they should apply to the Institution for inclusion of their products among those to be stamped with the ISI mark in accordance with the provisions of the Certification Marks Act.

[Paragraph 16.3]

(11) Government should examine the possibility of extending the validity of licences for import of urea formaldehyde moulding powder for one year instead of six months as at present.

[Paragraph 22.1]

(12) Statistics relating to imports of urea formaldehyde moulding powder should be recorded separately by the Director General of Commercial Intelligence & Statistics and Collectors of Customs.

[Paragraph 22.3]

(13) The annual demand for plastic buttons in the country cannot be estimated with any degree of accuracy.

[Paragraph 24]

(14) The Indian Standards Institution should finalise standard specifications for plastic buttons at the earliest.

[Paragraph 25]

(15) Protection to the section of the industry engaged in the manufacture of phenol formaldehyde moulding powder should be continued at the existing rate of duty, namely 31½ per cent. *ad valorem* for a period of three years, *i.e.*, till 31st December, 1959.

(16) Manufacturers of phenol formaldehyde moulding power having a minimum annual production of 200 tons should continue to enjoy the concession in the form of refund of duty paid on imports of phenol, formaldehyde and hexamine.

[Paragraph 31.1]

(17) Protection to the section of the industry engaged in the manufacture of electrical accessories should be discontinued after 31st December, 1956.

[Paragraph 31.2]

(18) Protection to the section of the industry engaged in the manufacture of plastic buttons should be continued for a period of three years, *i.e.*, till 31st December, 1959 at the existing rate of duty, namely, 66⅔ per cent. *ad valorem* or 12 annas per gross whichever is higher.

[Paragraph 31.3]

33. We wish to express our thanks to the representatives of the producers and their association, importers, consumers and the various Government Departments for furnishing us with valuable information and giving evidence before us.

Acknowledgments.

C. RAMASUBBAN,
Member.

S. K. MURANJAN,
Member.

S. K. BOSE,
Secretary.

BOMBAY,
The 9th April, 1956.

APPENDIX I

(Vide paragraph 2.1)

List of persons, associations and others to whom the Commission's questionnaires were issued and from whom replies or memoranda were received

*Indicates those who applied.

PRODUCERS :

(*a*) *P. F. Moulding Powder.*

*1. The Industrial Plastics Corporation, Rajabahadur Mansion, 2nd Floor, 14, Hamam Street, Fort, Bombay.

*2. Plastic Products of India Ltd., 251, Bhavani Peth, Satara.

*3. Indian Plastics Ltd., Poisar Bridge, Kandivli, Bombay S. D.

*4. Bharat Electrical Mfg. Co. Ltd., Sihore (Saurashtra).

(*b*) *Electrical Accessories.*

*1. Swadeshi Industries Ltd., 33, Netaji Subhas Road, Calcutta.

*2. Kersons Mfg. Co. of India Ltd., Gopal Nivas, Lohar Chawl, Bombay-2.

*3. Osham Industries, 302, Kalbadevi Road, Bombay-2.

*4. Khosla Plastics, Elphinstone Road, Kirkee, Poona-3.

5. India Moulding Co. Ltd., C-2, Bharat Bhavan, 3, Chittaranjan Avenue, Calcutta-13.

*6. Kay Engineering Company, Factory Area, Kapurthala.

*7. India Sales and Service Ltd., 37/110, Gopal Mandir Lane, Banaras-1.

8. Plastic Products Ltd., Kamla Tower, Kanpur.

*9. Sri Lakshmana Plastic Works, P. B. No. 108, Karanthai, Tanjore, South India.

*10. Indian Plastics Ltd., Poisar Bridge, Kandivli, Bombay S. D.

*11. General Electrical Industries, 14/16, Devkaran Mansion, Vithaldas Road, Lohar Chawl, Bombay-2.

*12. Bharat Electrical Manufacturing Co. Ltd., Sihore (Saurashtra).

13. Philips Electrical Co. (India) Ltd., 19, Convent Road, Calcutta-14.

14. Rubako Industries, Behramji Mansion, Sir P. M. Road, Bombay-1.

15. Plastella, 91, Ghodbunder Road, Borivli.

16. Calcutta Plastic Works, 26, Upper Chitpur Road, Calcutta.

17. Calcutta Plastic Industries, 6, Sambhu Mallick Lane, Calcutta.

18. Patel Electrical Industries, Shriji Bhuvan, Lohar Chawl, Bombay-2.

*19. India Reconstruction Corporation, P. O. Box No. 254, Kanpur.

*20. Government Electric Factory, P. O. Box No. 579, Mysore Road, Bangalore-2.

21. Hindustan General Electric Corporation Ltd., 5, Royal Exchange Place, Calcutta.

(c) *Buttons made of Plastics.*

*1. Hindusthan Plastics Ltd., Podar Chambers, Parsee Bazar Street, Bombay-1.

*2. Praga Industries Ltd., Post Box No. 161, P. O. Peelamedu, Coimbatore, South India.

*3. Rattanchand Harjas Rai (Plastics) Ltd., Guru Bazar, Amritsar.

*4. Indian Plastics Ltd., Poisar Bridge, Kandivli, Bombay S. D.

*5. Sri Lakshmana Plastic Works, P. O. No. 108, Karanthai, Tanjore, South India.

*6. Jaga Button Industries Ltd., Mettupalayam Road, Coimbatore, South India.

7. Barar Lion Buttons Ltd., Guru Bazar, Amritsar.

8. Bihar Industrial Button Factory, Mehsi, Champaran.

*9. Button Manufacturers Association, Post Box No. 161, Coimbatore, South India.

10. Chheharta Button Factory, Chheharta, Amritsar.

11. Pioneer Button Industries Ltd., Singanallur, P. O. Coimbatore, South India.

IMPORTERS :

(a) *P. F. Moulding Powder.*

*1. Bakelite (India) Ltd., India House, Opposite G. P. O., Post Box 1948, Bombay-1.

*2. Imperial Chemical Industries (India) Ltd., I. C. I. House, 34, Chowringhee, Calcutta-16.

*3. T. T. Krishnamachari and Co., Co-operative Insurance Building, Sir P. M. Road, Bombay-1.

*4. P. S. Banarase Industries (India) Ltd., Bandera Road, Amravati (M. P.).

5. Khosla Plastics, Elphinstone Road, Kirkee, Poona-3.

6. Kay Engineering Company, Factory Area, Kapurthala.

7. Kersons Mfg. Co. of India Ltd., Gopal Niwas, Lohar Chawl, Bombay-2.

8. Swadeshi Industries Ltd., 33, Netaji Subhas Road, Calcutta.

9. Government Electric Factory, P. O. Box No. 579, Mysore Road, Bangalore-2.

10. General Electrical Industries, Devkaran Mansion, Vithaldas Road, Lohar Chawl, Bombay-2.

11. Ronald Armstrong, Sir P. M. Road, Fort, Bombay.

(b) *Electrical Accessories.*

1. Champaklal and Company, Lohar Chawl, Bombay-2.

2. Terra Trading Corporation, Ashok Building, Lohar Chawl, Bombay-2.

3. Vadilal R. Shah, Lohar Chawl, Bombay-2.

4. Globe Electrical and Trading Co., Hazra Street, Calcutta.

5. V. L. Roy and Co., 176, Princess Street, Bombay-2.

6. Shantilal and Brothers, 54, Lohar Street, Bombay-2.

7. Chandulal and Co., 179, Samuel Street, Bombay-9.

8. Electric Merchants Association, 35, Bhangwadi, Kalbadevi, Bombay-2.

9. Trinity Electric Syndicate, Princess Street, Bombay.

10. Voltas Limited, 19, Graham Road, Ballard Estate, Bombay.

11. Associated Electrical Industries Mfg. Co. Ltd., 1, Taratalla Road, Garden Reach P. O., Calcutta-24.

(*c*) *Buttons made of Plastics.*

1. S. D. Pattabiram Mudaliar and Sons, 14/16, Devaraja Mudaly Street, Madras-3.

2. S. A. Barar and Co., 71, Canning Street, Calcutta.

3. Kunjlal Sital Prasad Oswal, Sadar Bazar, Delhi.

4. Tarachand Shamjee, 45, Nagdevi Street, Bombay.

5. Roshanally and Co., 118, Nagdevi Street, Bombay.

*6. Framroze A. Katpitia, Merwan Building, Room No. 6, 1st Floor, Sir P. M. Road, Bombay-1.

7. International Agencies, Bazar Malka, Amritsar.

8. Saifee Trading Co., 17, 1st Cooper Street, Bombay-3.

9. H. Blascheck and Co. Ltd., 44, Cawasjee Patel Street, Fort, Bombay-1.

10. Devidas Nandlal and Co., 241, Abdul Rehman Street, Bombay-3.

*11. R. C. H. Brar and Co., Guru Bazar, Amritsar.

12. Ahmed Ebrahim Kaper, 82, Chakla Street, Bombay.

13. Standard Sales Agency, 47-A, Ali Chambers, Medows Street, Bombay-1.

*14. Hugo Wachsmann (India) Ltd., Fern House, Colaba Causway, Bombay-1.

15. New Indo Trading Co., Marwadi Vidyalaya, Sardar Patel Road, Bombay.

16. Kandi Shivaji Parekh, 51, Mangaldas Road, Bombay-2.

*17. N. P. Master and Co., 17, Gunbow Street, Bombay-1.

18. Doshi Brothers, 67, Mohomedalli Road, Bombay-3.

19. Jivathram Kundanmal, Kalbadevi Road, Bombay-2.

CONSUMERS :

(*a*) *P. F. Moulding Powder.*

1. Angelo Brothers Ltd., Cossipore, Calcutta-2.

2. B. M. Plastic Works, Bazar Radha Kishan, Ambala City.

3. Bombay Bakelite Co., Dhuru Wadi, Near Cadel Road, Bombay-28.

*4. Cipra Bakelite Co., Mogal Lane, Mahim, Bombay-16.

5. Crompton Parkinson Works Ltd., Haines Road, Worli, Bombay-18.

6. Ellora Art Industries, P. O. Box No. 2513, 18, 2nd Fopalwadi, Bombay-2.

*7. Government Electric Factory, P. O. Box No. 579, Mysore Road, Bangalore-2.

8. Hindusthan Plastics Ltd., Podar Chambers, Parsee Bazar Street, Bombay-1.

9. Indian Glass Agency, Opposite Jama Masjid Dispensary, Delhi.
10. Indo Plastics, 11, Tinwala Building, Tribhuvan Road, Bombay.
11. Imperial Industrial Co., Opposite Sitaladevi Temple, Mahim, Bombay.
12. India Reconstruction Corporation Ltd., P. O. Box No. 254, Kanpur.

*13. India Sales and Service Ltd., 37/110, Gopal Mandir Lane, Banaras-1.

*14. Sri Lakshmana Plastic Works, Post Box No. 108, Karanthai, Tanjore, South India.

15. Model Manufacturing Co., Laj Building, Rohtak Road, Delhi.
16. M. S. Plastics Co., Forjett Street, Bombay-26.
17. Orient Plastics, 127, End Raroji Road, Dongri, Bombay.
18. Osham Industries, 302, Kalbadevi Road, Bombay.
19. Plasticians, Mody Mansion, Mereweather Road, Apollo Reclamation, Bombay.
20. Plastics Products Ltd., Kamala Tower, Kanpur.
21. Plastics Manufacturers Ltd., 105, Stephen House, 5, Dalhousie Square East, Calcutta-1.
22. Standard Steel and Bakelite Industries, 212, Bellasis Road, Bombay-8.

*23. Patel Bakelite and Tin Industries, 66A, Kotwadi Woollen Mill Lane, Opposite Ruby Mills, Dadar, Bombay-28.

24. Plasto Metal Moulding Works of India, Lalgir Mansion, Harvey Road, Bombay-7.
25. India Moulding Company, C-2, Bharat Bhuwan, 3, Chittaranjan Avenue, Calcutta.
26. National Engineering and Electroplating Works, 53, Khetwadi, 10th Lane, Arab Bungalow, Bombay-4.
27. Indian Plastics Ltd., Poisar Bridge, Kandivli, Bombay S. D.
28. Oriental Plastics Corporation, Narayan Nagar, Agra Road, Ghatkopar, Bombay.
29. Swadeshi Industries Ltd., 33, Netaji Subhas Road, Calcutta.

*30. Indian Telephone Industries Ltd., Duravaninagar, Bangalore.

(*b*) *Electrical Accessories.*

1. Electrical Contractors Association, 60, Apollo St., Fort, Bombay-1.
2. Asia Engineering Industries Co. Ltd., 11, Ezra Street, Calcutta-1.
3. Tata Iron and Steel Co. Ltd., Jamshedpur.
4. K. C. Mohata, 11, Ezra Street, Calcutta.

*5. The Controller of Stores, Eastern Railway, Calcutta.

6. The Controller of Stores, Southern Railway, Perambur (South India).
7. The Controller of Stores, Central Railway, Lower Parel, Bombay.

*8. The Controller of Stores, Western Railway, Churchgate, Bombay.

9. The Controller of Stores, Bombay Port Trust, Bombay.
10. The Controller of Stores, Kandla Port Trust, Kandla.
11. Commissioners for the Port of Calcutta, Calcutta.
12. The General Manager, B. E. S. T. Undertaking, Electric House, Colaba, Bombay.

(*c*) *Buttons made of Plastics.*

*1. Nath Brothers, Gandhi Market, Sadar Bazar, Delhi-6.

2. N. N. Gupta and Co., 87, Khengrapatty Street, Calcutta.

3. Gopaldas Chellaram, 247, Masjid Bunder Road, Bombay.

4. R. V. Subbiah Chetty, 268/269, Devaraja Mudaly Street, Madras.

*5. K. H. Shama Rao and Sons, Post Box No. 66, Bangalore-2.

6. Batra Buttons Stores, Sadar Bazar, Delhi.

7. Director of Industries, Kanpur.

*8. Harness and Saddlery Factory, Kanpur, C/o The Director General, Ordnance Factories, 6, Esplanade East, Calcutta-1.

*9. Ordnance Clothing Factory, Shahjahanpur and Ordnance Parachute Factory, Kanpur, C/o Directorate General of Ordnance Factories, 6, Esplanade East, Calcutta-1.

10. The Controller of Stores, Northern Railway Head Quarters Office, Delhi.

11. Raja Buttons Stores, Swadeshi Market, Sadar Bazar, Delhi.

12. Swadeshi Button Stores, P-5, Canning Street, Calcutta.

APPENDIX II

(*Vide* paragraph 2.3)

List of persons who attended the Commission's public inquiry on 27th February, 1956

PRODUCERS :

(1) Shri R. C. Shah	representing	The All India Plastics Manufacturers Association, Chowpatty Chambers, Sandhurst Bridge, Bombay-7; and Indian Plastics Ltd., Poisar Bridge, Kandivli, Bombay S. D.
(2) Shri R. N. Desai (3) Shri A. H. Srikanta Aiyer	,,	The All India Plastics Manufacturers Association, Chowpatty Chambers, Sandhurst Bridge, Bombay-7.
(4) Shri K. S. Krishnamoorthy (5) Shri V. V. Ketkar	,,	Indian Plastics Ltd., Poisar Bridge, Kandivli, Bombay S. D.
(6) Shri B. M. Thakkar (7) Shri Bimal M. Thakkar (8) Shri M. L. Bhatt (9) Shri V. Jagadish	,,	The Industrial Plastics Corporation Ltd., Rajabahadur Mansion, 2nd Floor, 14, Hamam Street, Bombay-1.
(10) Shri S. M. Gupta	,,	Hindusthan Plastics Ltd., Podar Chambers, Parsee Bazar Street, Bombay-1.
(11) Shri A. R. Khosla	,,	Khosla Plastics, Elphinstone Road, Kirkee, Poona-3.
(12) Shri S. P. Khosla	,,	Kay Engineering Co., Factory Area, Kapurthala.
(13) Shri R. N. Shah	,,	Kersons Manufacturing Co. of India Ltd., Gopal Niwas, Lohar Chawl, Bombay-2.
(14) Shri Surendra Nath (15) Shri Shadi Lal Jain	,,	Rattan Chand Harjas Rai (Plastics) Ltd., Guru Bazar, Amritsar.
(16) Shri M. C. Chinoy	,,	Osham Industries, 302, Kalbadevi Road, Bombay-2.
(17) Shri S. M. Ramaswamy Iyer	,,	Praga Industries Ltd., Peelamedu P. O., Coimbatore, South India.
(18) Shri W. K. Pawagi (19) Shri K. C. Jain	,,	India Sales and Service Ltd., 37/110, Gopal Mandir Lane, Banaras-1.
(20) Shri Y. R. Anand	,,	Swadeshi Industries Ltd., 33, Netaj Subhas Road, Calcutta.

IMPORTERS :

(1) Shri F. A. Katpitia	,,	Framroze A. Katpitia, Merwan Building, Room No. 6, 1st Floor, Sir P. M. Road, Bombay-1.
(2) Shri K. N. Sharma (3) Shri P. D. Deshpande	,,	T. T. Krishnamachari and Co., Co-operative Insurance Building, Sir P. M. Road, Bombay.
(4) Shri J. Fernandes	,,	Bakelite (India) Ltd., India House, Post Box 1948, Bombay-1.

CONSUMERS :

Shri V. H. Jain	representing	Indian Telephone Industries Ltd., P. O. Duravaninagar, Bangalore.

SUPPLIERS OF RAW MATERIALS :

Shri J. N. Iyer	representing	Srinivas Brothers Ltd., 24-B, Hamam Street, Bombay.

GOVERNMENT OFFICIALS :

(1) Shri R. Parikshit, Assistant Development Officer (Chemicals), Ministry of Commerce and Industry (Development Wing), New Delhi.

(2) Shri V. B. Mainkar, Technical Officer (Chemicals), Indian Standards Institution, 19, University Road, Civil Lines, Delhi-8.

(3) Shri P. R. Jog, Principal Appraisar, Office of the Collector of Customs, New Custom House, Bombay-1.

(4) Shri N. R. Kamath, Department of Chemical Technology, University of Bombay, Matunga Road, Bombay-19.

OBSERVERS :

(1) Mr. G. J. Husted, United Kingdom Trade Commissioner, Mercantile Bank Building, Mahatma Gandhi Road, Bombay-1.		
(2) Mr. W. E. Norris	representing	Goodlass Wall Ltd., Forbes Building, Home Street, Bombay-1.
(3) Shri S. K. Sane		Walchandnagar Industries Ltd., Construction House, Ballard Estate, Bombay-1.

APPENDIX III

(*Vide* paragraph 11)

Particulars of c. i. f. prices and landed costs of imported phenol formaldehyde moulding powder obtained from Collectors of Customs and leading importers

(price per lb.)

Serial No.	Source of information	Origin of import	Date of import	Type and specification	C.i.f. price	Customs duty	Celaring charges	Landed cost	Remarks
1	2	3	4	5	6	7	8	9	10
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	Collector of Customs, Bombay	U. K.	7-5-54	(From Bakelite Ltd.)	0 14 3	0 4 6	0 0 2	1 2 11	
		Germany	31-5-54	31—1608	0 15 9	0 5 0	0 0 2	1 4 11	
		U. K.	24-6-55	Granular Powder (from Empire Products Ltd.)	0 15 5	0 4 10	0 0 2	1 4 5	
		Do.	Do.	Ditto	0 13 9	0 4 4	0 0 2	1 2 3	
		W. Germany	Dec. 1954	31/1449	0 14 0	0 4 5	0 0 2	1 2 7	
		U. K.	Do.	X—52	0 14 1	0 4 5	0 0 2	1 2 8	
		W. Germany	Feb. 1955	31/1618	0 13 3	0 4 2	0 0 2	1 1 7	
		Do.	Do.	31/4468	0 14 9	0 4 8	0 0 2	1 3 7	
		U. S. A.	2-7-55	B. M. 2498 Black	0 13 11	0 4 4	0 0 2	1 2 5	
2	Collector of Customs, Madras	U. K.	6-11-54	"Bakelite"	1 1 10	0 5 7	0 0 1	1 7 6	
		Do.	25-2-55	Grade "Bakelite" X-20/5 Black YL.	1 1 8	0 5 7	0 0 1	1 7 4	

1	2	3	4	5	6	7	8	9	10
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
3	Collectorof Customs Calcutta	U. K.	24-6-55	Bakelite	0 15 0	0 4 9	0 0 9	1 4 6	
		Do.	6-9-55	Telephone Grade (I. C. I.)	1 4 0	0 6 4	0 1 0	1 11 4	
		Do.	10-9-55	Ditto	1 12 7	0 9 0	0 1 5	2 7 0	
4	I. C. I. (India) Ltd.	Do.	April 1955	High Electrical grade	1 7 8	0 7 7	0 0 3	1 15 6	
		Do.	Do.	Ditto	1 5 8	0 6 11	0 0 3	1 12 10	
		Do.	May 1955	Ditto	1 5 1	0 6 8	0 0 3	1 12 0	
5	T. T. Krishanmachari & Co,	Germany	..	3 (*Woodfilled*) Grade 31/4400 (40% resin) up to 9999 kgs	0 15 1	..	..	..	These prices are only quotations and do not relate to actual imports.
		Do.	..	Grade 31/4400 (40% resin) up to 10-20000 kgs.	0 14 3	..	..	..	
		Do.	..	Grade 31/1400 (40% resin)	0 15 1	..	..	..	
		Do.	..	Grade 31/4600 (50% resin)	1 0 0				
		Do.	..	Grade 31/1500 (45% resin)	1 2 8	..	..	..	
		Do.	..	Grade 31/1600 (50% resin)	1 1 4	..	..	..	
6	Bakelite (India) Ltd., Bombay	Germany	Sept. 1955	Type G Bakelite Grade X. 52	0 14 8	0 4 7	0 0 9	1 4 0	
				Type G Backelite Grade X. 20/5	1 1 9	0 5 7	0 0 9	1 8 1	

APPENDIX IV

(*Vide* paragraph 29)

Particulars of c.i.f. prices and landed costs of imported buttons made of urea formaldehyde moulding powder from Collector of Customs and leading importers

Serial No.	Source of information	Origin of import	Date of import	Type and specification	C.i.f. price	Customs duty	Clearing charges	Landed cost
1	2	3	4	5	6	7	8	9
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Collector of Customs, Bombay.	Italy	Dec. 1954	Coat buttons (plain) 23/32 lignes (8 doz.: 4 doz.)	0 14 0	0 12 0	0 2 0	1 12 0
		Do.	Do.	Do. (Mottled)	1 10 0	1 1 0	0 3 0	2 14 0
		Do.	July 1950	Do. 22/27 lignes	1 6 0	0 15 0	0 2 0	2 7 0
		Do.	Aug. 1955	Bush Coat buttons 24 lignes	0 14 0	0 12 0	0 2 0	1 12 0
		Do.	Do.	Do. 22 ,,	0 9 9	0 12 0	0 1 3	1 7 0
		Do.	Do.	Do. 20 ,,	1 0 0	0 12 0	0 2 0	1 14 0
		Do.	Do.	Shirt 16 ,, Buttons.	0 12 0	0 12 0	0 2 0	1 10 0
2	Collector of Customs, Calcutta.	U. K.	May, 1955	Lacrinoid ring edge coat and waist coat buttons size 22.	0 15 0	0 12 0	0 0 9	1 11 9
3	Collector of Customs, Madras.	U. K.	19-4-55	Coat Buttons size 22	3 0 0	2 0 0	0 0 6	5 0 6

1	2	3	4	5	6	7	8	9
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
4	Framroze A. Katpitia, Bombay.	Italy	26-11-55	Buttons made of urea formaldehyde Coat size 23/32" (Ratio 8 : 4: Plain	0 11 3	0 12 0	0 0 2	1 7 5
			20-6-55	Do. Mottled	1 4 6	0 12 0	0 0 5	2 0 11
		Do.	17-7-55	Pant Buttons size 22"	0 8 10	0 12 0	0 0 2	1 5 0
		Do.	..	Do. 22/27"	0 10 9	0 12 0	0 0 2	1 6 11
		Do.	..	Shirt Buttons size 16"	0 6 1	0 12 0	0 0 1	1 2 2
		Do.	..	Do. 18"	0 6 6	0 12 0	0 0 1	1 2 7
		Do.	..	Do. 24"	0 11 3	0 12 0	0 0 2	1 7 5
5	Hugo Wachsmann (India) Ltd., Bombay.	Italy	19-4-54	Coat Buttons 23-34"	1 4 5	0 13 8	0 0 8	2 2 9
		Do.	Do.	Bush Coat Buttons 24"	0 10 8	0 12 0	0 0 8	1 7 4
		Do.	Do.	Do. 23"	0 8 0	0 12 0	0 0 8	1 4 8
		Do.	20-1-55	Pant Buttons 22"	0 8 5	0 12 0	0 0 8	1 5 1
		Do.	Do.	Do. 22/27"	0 8 11	0 12 0	0 0 8	1 5 7
		Japan	7-4-55	Coat Buttons	0 14 3	0 12 0	0 0 8	1 10 11
6	N. P. Master and Co. Bombay	Italy and Japan.	1-7-55	Coat Buttons 22/30 & 24/30	0 12 5	0 12 0	0 1 0	1 9 5
		Italy	Do.	Shirt Buttons	0 6 3	0 12 0	0 1 0	1 3 3
		Do.	Do.	Bush Shirt Buttons	0 10 8	0 12 0	0 1 0	1 7 8

GIPN—S2—2 T. C. Bom—20-7-56—800.