England. The terms of trade will change. The new terms of trade may be either on the ray OT_1 or OT_2. If they are OM on the ray OT_1, the terms of trade will be favourable to England because it will be exchanging LM cloth for OL linen of Germany. On the other hand, if the terms of trade are at ON on the ray OT_2, they are unfavourable to England because it will have to exchange more cloth LN for OL linen of Germany. "As in the case of bilateral monopoly—with a monopoly buyer and a monopoly seller—the outcome is theoretically indeterminate."[2]

5. THE EQUIVALENCE OF TARIFFS AND QUOTAS

There is an equivalence between a tariff and a quota. Both produce similar effects in raising domestic price, protecting domestic production of the importable commodity, reducing domestic consumption and restricting the volume of imports.

Assumptions. The analysis of equivalence between a tariff and a quota assumes that : (*a*) there is perfect competition in the domestic market; (*b*) there is competitive foreign supply; (*c*) domestic buyers as a group face a supply curve that equals the domestic supply curve plus the fixed quota; (*d*) the quota ensures perfect competition is that it is fully used; (*e*) the tariff and the import quota are equivalent in the sense that a tariff is just high enough to make the quantity of imports equal to the amount and allowed by the quota.

Explanation. Given these assumptions, the similar effects of a tariff and an import quota are illustrated in Fig. 3 where D_d and S_d are the domestic demand and supply curves of an importable commodity. OP_W is the world price and $P_W S_F$ is the foreign supply curve under free trade which is perfectly elastic at OP_W price. Thus, under perfectly competitive conditions, free trade equilibrium is given by point B where the D_d curve intersects the supply curve $P_W S_F$ at the world price OP_W. The total demand for the commodity is OQ_3 and the domestic supply is OQ. The gap between domestic demand and supply is met by imports of QQ_3 quantity of the commodity at OP_W price.

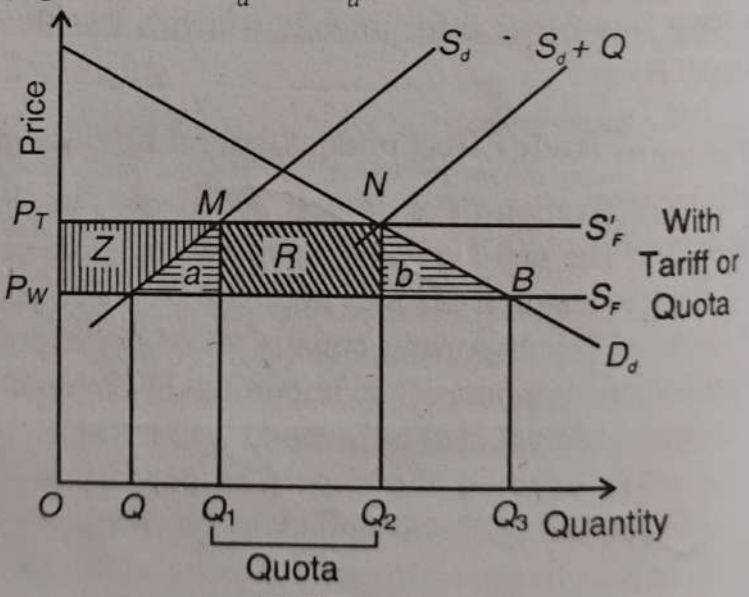

FIG. 3

Price Effect. When a tariff at the rate of $P_W P_T / OP_T$ is imposed on the imports of the commodity, it shifts the $P_W S_F$ curve upwards to $P_T S'_F$ and raises the price

2. C.P. Kindleberger, *op. cit.*, p. 124.

to OP_T. Similarly, the direct imposition of an import quota equal to Q_1Q_2 quantity of the commodity shifts the domestic supply curve to the right as $S_d + Q$. It intersects the D_d curve at N so that the quota raises the domestic price to OP_T. Thus the price effect of a tariff and a quota is to raise the price of the commodity by an equivalent amount.

Protective Effect. The aim of both a tariff and an import quota is to reduce the quantity of the importable commodity and protect the domestic producers of the commodity from foreign competition. In terms of Fig. 3, before the imposition of a tariff, QQ_3 quantity of the commodity is imported. But with the imposition of P_WP_T/OP_T tariff, imports are reduced from QQ_3 to Q_1Q_2 and domestic production expands from OQ and OQ_1. Thus the increase in the domestic production of the commodity by QQ_1 amount is the protective or production effect of the tariff. Similarly, when Q_1Q_2 import quota is fixed, the domestic production of the commodity increases from OQ to OQ_1 thereby leading to a protective effect of QQ_1 equivalent to that under the tariff.

Consumption Effect. A tariff and an import quota produce an equivalent consumption effect. Both tend to raise the domestic price of the commodity and reduce its domestic consumption. In Fig. 3, the domestic consumption of the commodity under free trade is OQ_3. With the imposition of P_wP_T/OP_T tariff and the rise in the price to OP_T, imports are reduced by Q_3Q_2 so that the total consumption of the commodity is also reduced from OQ_3 to OQ_2. Thus Q_3Q_2 is the consumption effect of the tariff. Similarly, when the import quota of Q_1Q_2 is fixed, the total domestic consumption falls from OQ_3 to OQ_2 so that the consumption effect of Q_3Q_2 under the quota equals that under the tariff.

Net National Loss. The net national loss from a tariff is equivalent to that of an import quota. With the increase in the domestic price of the commodity to OP_T due to a tariff, the net loss in consumers' surplus is P_TNBP_W (the area under the demand curve).

Now the area P_TNBP_W = area $Z + a + R + b$. Out of this, area R is taken away by the government as revenue. The area Z is producers' gain from the tariff. The net national loss consists of areas a and b represented by the two triangles.

This can be shown as

Consumer's Loss	= Area	Z + a + R + b
Producer's Again	= Area	Z
Government Revenue	= Area	R
Net national loss	= Area	a + B

This equivalence of a tariff and an import quota holds only under perfectly competitive conditions. Bhagwati[3] has shown in his paper "On the Equivalence of Tariffs and Quotas" that there is *non-equivalence of tariff and quotas* if there is any monopoly power in domestic production or if there is no perfect

3. J. Bhagwati, *Trade, Tariffs and Growth*, 1969.

competition among quota holders when import licenses are issued only to a few. The importer with a license can get the difference between the world price OP_W and the domestic price OP_T as amount of profit per unit. If licenses are auctioned, the importers would be prepared to pay upto $P_W P_T$ per unit of import permitted.

6. IMPORT QUOTAS vs. TARIFFS

An import quota, like a tariff, causes a reduction in imports, a rise in prices and an increase in domestic production of a commodity on which it is imposed. Both have common price, consumption, redistributive, balance of payments and terms of trade effects. But there are important *differences* between an import quota and a tariff which are discussed as under :

1. Restrictive Effect. The restrictive effect of an import quota is speedier and tighter than that of a tariff. While a tariff primarily influences commodity prices, an import quota determines the amount of goods imported. Unlike an import quota, a tariff does not impose any limitation on the quantity of goods imported. But if an import quota is initially meant to influence the quantity of goods imported, it may lead to scarcity of goods and steeper price rise.

2. Quantity of Imports. As import quota fixes the maximum quantity that can be imported more rigidly than a tariff. A tariff, on the other hand, is milder because after the initial phase is over, imports tend to increase if the foreign price falls or the domestic demand or price of the protected commodity increases.

3. Stable Vs. Unstable. An import quota is unstable because it can be changed at the discretion of the bureaucracy while a tariff is stable because any change in the tariff policy requires legislative approval.

4. Discriminatory Vs. Non-Discriminatory. An import quota is more discriminatory than a tariff in restricting the supply of commodities from different countries. Thus it tends to embitter international relations. Since under a tariff, the market mechanism of demand and supply operates freely, there is less scope for discrimination with other countries. But under the quota system, the basis of allocation of import quotas is not based on any one accepted principle which often leads to international discrimination.

5. Revenue Vs. Profit. A tariff benefits the government in the form of additional revenue earned by levying a tariff duty while an import quota brings profits to importers to holding licenses. However, the government may profit from the quota if it auctions import licenses to importers.

6. Quota or Economic Rent. Import restriction by way of a tariff or an import quota attaches a scarcity value to imports which gives rise to a margin, called economic or qouta rent as a result of the difference between the domestic demand price and the foreign supply price. In the case of a tariff, the economic rent goes to the government as revenue. But in the case of an import quota, the economic rent may accrue to government, importers, foreign producers, domestic consumers or officials administering the quota system.

7. Monopoly. An import quota eliminates foreign competition and

encourages domestic monopoly more than a tariff. An import quota is worse than a tariff when it creates monopoly. The allocation of import quotas to a few importers leads to monopoly power. They exploit the market and earn huge quota profits. With the monopoly-creating quota, the country gets even higher prices, lower output, and greater national losses than from a tariff that would have given it the same amount of imports.

8. Balance of Payments. Import quotas and tariffs are often used to improve a country's balance of payments. But import quotas cannot lead to an improvement in the balance of payments equal to the reduction in imports. Quotas make imports rigid both in the upward and downward directions by creating a large gap between the domestic and foreign price of imported goods. On the other hand, tariffs do not restrict the volume of imports and exports except under prohibitively high tariffs. Thus tariffs do not interfere in the flexibility of balance of payments mechanism.

9. Terms of Trade. The effect of a tariff on terms of trade is certain. But in the case of an import quota, the terms of trade effect is uncertain and indeterminate.

10. Retaliation. Both tariffs and quotas restrict imports and are likely to lead to retaliation by other countries. But the possibility of retaliation is more in the case of a quota than a tariff. A high tariff rate seldom leads to retaliation by the other country which may reduce its export prices. But a tariff quota with high duty and low quota leads to retaliation by the other country.

11. Effective Protection. When quota is imposed on imported raw materials to be used for domestic product it raises its production costs. It has the same effect as that of a tariff. But rebate is often not given on import duties in the case of raw materials when the final product is exported, whereas rebate is given in the case of a quota.

12. Simple Vs Cumbersome. An import quota requires a cumbersome administrative procedure. On the other hand, a tariff is simple to impose. The allocation of quotas is a cumbersome process which leads to arbitrary government decisions, political interference and corruption.

13. Price Differentials. Tariffs and quotas also differ in price differentials between domestic price and world price. In the case of a tariff, the domestic price differs from the world price by the amount of the tariff duty. An importer can import any quantity of the product by paying the duty. But this is not so in the case of a quota where there is no limit to the difference between the domestic price and world price. This is illustrated in Fig. 4 where S_d is the domestic supply curve and D_d is the domestic demand curve for a commodity with no trade, the domestic price is OP. Under free trade, the world price is OP_1 and QQ_3 quantity of the commodity is imported. A tariff of P_1P_2/OP_2 raises the domestic price to OP_2 and imports are reduced to Q_1Q_2. When an import quota of Q_1Q_2 is imposed, the domestic price also rises to OP_2 and the imports are again reduced to Q_1Q_2. Thus there is equivalence of a tariff and quota in terms of price rise and volume

4. EFFECTS OF IMPORT QUOTAS

Kindleberger has analysed eight effects of import quotas, some under partial equilibrium and others under general equilibrium analysis. First, we explain the effects of import quotas under partial equilibrium analysis.

Partial Equilibrium Analysis

Price Effect. The aim of an import quota is to limit the physical quantity of a commodity. So when an import quota is fixed, it tends to raise the price of the commodity. How much the price will rise depends upon the supply and demand conditions of the commodity within the domestic market and the extent to which the supply of the imported commodity is restricted by the quota. The price effect of an import quota is illustrated in Fig 1 where D and S are the domestic demand and supply curves respectively of a commodity. PB is the foreign supply curve under free trade which intersects the domestic demand curve D at point B and OP price is determined. Thus the total domestic demand for the commodity is OQ_3. But the domestic supply is OQ. So QQ_3 quantity of the commodity is being

imported under free trade at OP price.

Suppose the government fixes an imports quota equal to the amount Q_1Q_2. Now the total supply curve of the commodity is $S + Q$ which consists of the domestic supply plus the quota amount. It intersects the domestic demand curve at N so that the quota raises the domestic price from OP to OP_1. Thus PP_1 is the price effect of the quota.

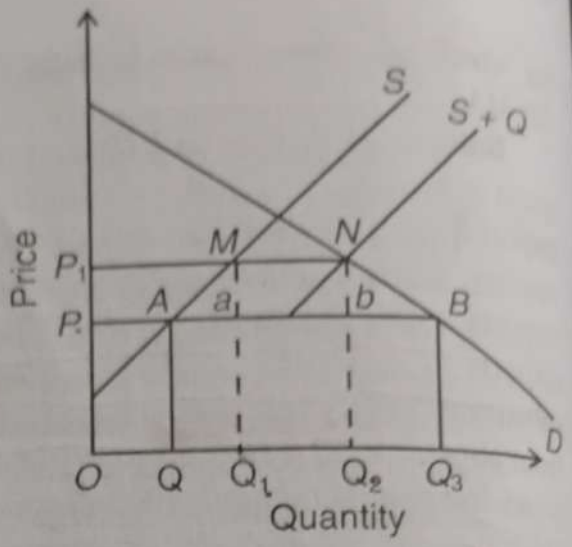

FIG. 1

Protective Effect. An import quota has a protective effect when it reduces the quantity of an importable commodity and protects the domestic producers of the commodity from foreign competition. In terms of Fig. 1 when Q_1Q_2 amount of import quota is fixed, the domestic production of the commodity increases from OQ to OQ_1. Thus QQ_1 is the protective effect of the import quota.

Consumption Effect. When an import quota is fixed, it tends to raise the domestic price of the commodity. Consequently, the domestic consumption is reduced. This is illustrated in Fig. 1 where under free trade the total domestic consumption of the commodity is OQ_3. With the fixation of the quota of Q_1Q_2 amount, the total domestic consumption falls to OQ_2. Thus the reduction in the domestic consumption by Q_3Q_2 $(= OQ_3 - OQ_2)$ is the consumption effect of the import quota.

Revenue Effect. The determination of the revenue effect of an import quota is quite complicated and difficult to determine. If the government auctions the import licenses at the price $PP_1 \times Q_1Q_2$ quantity allowed of the commodity, the revenue effect of the import quota will be equal to the area $aMNb$. This is equivalent to the import tariff. But governments do not auction import licenses these days. In that case, the revenue effect will be captured either by importers or exporter, or shared by both in the form of higher prices and profits and represents a rent for them. The revenue effect will be captured by domestic importers if they are organised and act as monopolists. On the other hand, if the foreign exporters are organised and the domestic importers are not, the revenue effect will be captured by the foreign exporters. If both domestic importers and foreign exporters are organised, there will be bilateral monopoly and the revenue effect will be shared by both. However, the actual result will be indeterminate, as under bilateral monopoly.

Redistributive Effect. The fixation of an import quota also leads to the redistribution effect. This happens when with the rise in the price of the commodity, the domestic producers earn higher profits and the consumers' surplus from the commodity decreases. In fact, the redistribution effect is the transfer of consumers' surplus to producers resulting from the rise in the price of commodity

11. The imported and domestically produced commodity are perfect substitutes.

Prof. Kindleberger has listed eight effects of tariffs : (1) Protective Effect; (2) Consumption Effect; (3) Revenue Effect; (4) Redistributive Effect; (5) Terms of Trade Effect; (6) Competitive Effect; (7) Income Effect; and (8) Balance of Payments Effect. All these effects are the result of the Price Effect which we first explain.

Price Effect. Given these assumptions, the price effect of a tariff is explained in terms of Fig. 1 where D and S are the domestic demand and supply curves of a commodity. OP represents the constant world price at which the foreign producers are prepared to sell their commodity in the domestic market. Thus the horizontal line PB is the supply curve of imports which is perfectly elastic at OP price. Thus under free trade (before the imposition of a tariff) the equilibrium market position is given by point B where the domestic demand curve D intersects the world supply curve PB at the price OP. The total demand for the commodity is OQ_3. The domestic supply is OQ. The difference between domestic demand and domestic supply is met by importing QQ_3 quantity at OP price.

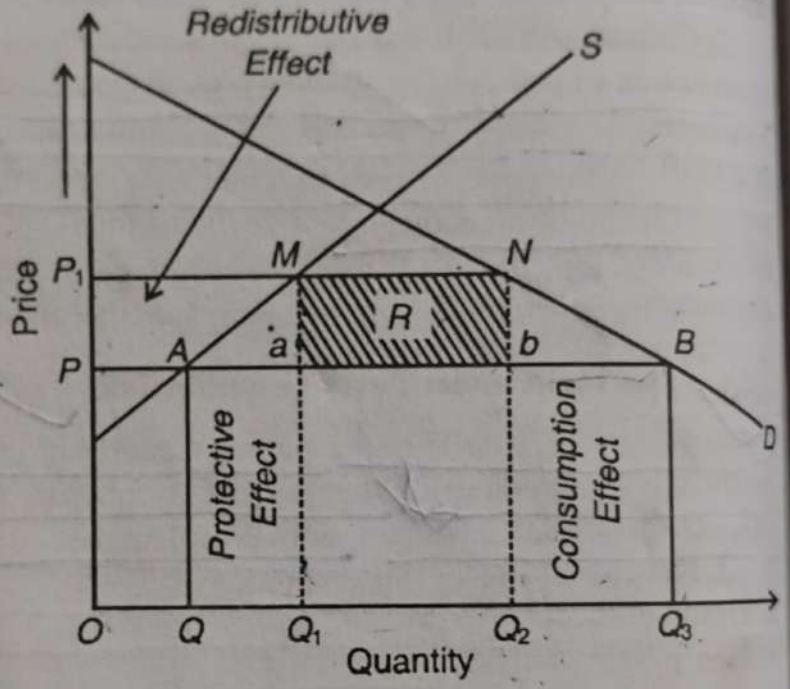

FIG. 1

Suppose a tariff of PP_1 is imposed on the import of the commodity. Given a constant foreign price, the domestic price of the commodity rises by the full amount of the tariff of OP_1. Thus the rise in the price of the commodity by PP_1 is the price effect of the tariff. As a result, the new equilibrium market position is given by point N. In response to the higher price, the domestic demand falls from OQ_3 to OQ_2 and the domestic supply increases from OQ to OQ_1. So that the total demand for the commodity is OQ_2 which is partly met by domestic supply OQ_1 and partly by importing Q_1Q_2. Thus imports have fallen from QQ_3 to Q_1Q_2 as a result of the price effect.

The protective, consumption, revenue and redistribution effects of a tariff can also be illustrated by Fig. 1.

1. Protective Effect. The protective effect shows how the domestic industry can be protected from foreign competition by imposing an importy duty. In Fig. 1 under free trade, QQ_3 quantity of the commodity is imported at OP price. With

2. EFFECTS OF TARIFFS

Tariffs have a variety of effects which depend upon their power to reduce imports. The effects of a tariff may be analysed from the standpoint of the economy as a whole which is known as the general equilibrium analysis. Or, they may be discussed from the point of view of a particular good or market which is known as the partial equilibrium analysis. A tariff "is likely to alter trade, prices, output, and consumption, and to reallocate resources, change factor proportions, redistribute income, change employment, and alter the balance of payments."[2]

1. Effects of a Tariff under Partial Equilibrium

The effects of a tariff under partial equilibrium analysis relate to a small industry in a small country. When a tariff is imposed on the imports of a single commodity by a small country, it does not affect the rest of the domestic economy and also the world price of this commodity.

Its Assumptions

The analysis of the effects of a tariff under the partical equilibrium analysis is based on the following assumptions :

1. There is only one small country.
2. It imposes tariff on one commodity.
3. The demand and supply curves of a commodity relate to the country which levies an import duty.
4. These curves are assumed as given and constant.
5. On the demand side, consumers' tastes, incomes and prices of other commodities are assumed to be fixed.
6. On the supply side, changes in cost conditions such as externalities, technological innovations, *etc.* do not take place.
7. The world supply of commodity is perfectly elastic with respect to price.
8. The home country does not impose tariff on the imports of materials required for producing the commodity.
9. There are no transport costs.
10. The foreign price of the commodity remains unchanged.

2. Charles P. Kindleberger, *op. cit.*, p. 107.

for which the import quota is fixed. It is shown in Fig. 1 as the quadrilateral PP_1MA.

Balance of Payments Effect. The balance of payments effect of an import quota is favourable to the quota imposing country. One of the objectives of fixing import quotas is to restrict imports so that they do not exceed the imports of the country. Thus import quotas tend to improve the balance of trade. Further, when imports are limited by the quota, the portion of the national income going to imports is also reduced. This is invested on domestic industries for import substitution and export promotion industries. This tends to increase the income from abroad and thereby improves the balance of payments position of the import quota imposing country. The balance of payments effect of an import quota is illustrated in Fig. 1 where under free trade QQ_3 commodity is imported at OP price. The total value of imports is represented by the rectangle AQQ_3B. This represents a balance of payments deficit because the amount paid by the importers is the amount received by the other country. To correct this balance of payments deficit, an import quota of Q_1Q_2 is fixed so that the imports are reduced to this quantity. If the government auctions this quota to importers, it receives an amount equal to the area $aMNb$. Or, if the importers are organised, they get this much amount as profits which they utilise for further investment within the country. This is also a saving on foreign exchange. There is also improvement in the balance of payments because the quota imposing country pays the amount equal to the area aQ_1Q_2b for imports which is less than what it paid under free trade AQQ_3B.

the demand fairly elastic in the importing country, the impostion of a tariff will not change the imports much, but they will be obtained much cheaply. If the supply curve in the exporting country is perfectly elastic the imposition of a tariff cannot improve the terms of trade at all.

7. Competitive Effect. The competitive effect of a tariff is to protect the domestic industry from foreign competition by imposing a tariff on the commodity imported. This effect is usually associated with the infant industry argument of protection. But the fear is expressed that an infant industry may not like to face competition even after attaining adulthood. It may develop into a monopoly and may continue to be inefficient. Prof. Kindleberger opines that "the competitive effect of a tariff is really an anti-competitive effect; competition is stimulated by tariff removal." He, therefore, favours the removal of tariff on "sluggish, fat and lazy" domestic industries in the interest of the economy.

8. Income Effect*. The income effect refers to the effect of a tariff on the levels of income and employment of a country imposing the tariff. A tariff reduces the demand for imported goods by reducing imports, and increases the demand for home-produced goods on the assumption that there is no retaliation by the other country. It will increase the value of the export surplus $(X - M)$, thereby increasing the inflow of income from the foreign sector. The whole of the income diverted from imports will not be saved but a part of it will be spent at home. Under conditions of less than full employment, this will raise money and real incomes and employment.

The income effect of a tariff is illustrated in Fig. 3. AD is the total expenditure schedule of the economy at unemployment level which crosses the 45° line at E so that OY_1 is the equilibrium level of income. AD also represents the aggregate demand and comprises $C + I + G + (X - M)$. When a tariff is imposed, it reduces imports by $-\Delta M$ and increases the demand for the domestically produced goods so that the aggregate demand curve shifts to $AD_1 = [C + I + G + (X - M)$. This gives a new equilibrium at point E_1. If the increased level of income OY_F is one of full employment, then the imposition of a tariff has brought the economy to the level of full employment and raised the level of income of OY_F.

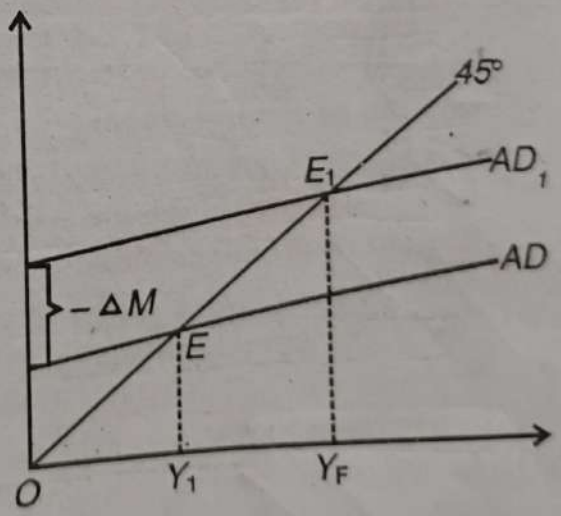

FIG. 3

The effect of tariff on income and employment of a tariff imposing country may not be expansionary for the following reasons. *First*, when the home country imposes a tariff, the exports of the foreign country are reduced which, in turn

the imposition of the import duty of PP_1, imports are reduced to Q_1Q_2, while the domestic production (supply) of the commodity increases from OQ to OQ_1. Thus the increase in the domestic production of the commodity by QQ_1 as a result of the tariff is the protective or production effect.

Prof. Ellsworth has carried this protective effect further and has analysed it as the import substitution effect. When the domestic producers face the higher price OP_1, they are able to cover the rising marginal costs of additional output, and expand production to OQ_1. This replacement of foreign production with domestic production by QQ_1 is called the import substitution effect of a tariff.

2. **Consumption Effect.** The consumption effect of the tariff is to reduce the consumption of the commodity on which the tariff is imposed, as also to reduce consumers' net satisfaction. These are illustrated in Fig. 1. Before the imposition of a tariff, consumers were consuming OQ_3 quantity of the commodity at OP price, with the levying of an import duty of PP_1, the price of the commodity rises to OP_1. Now imports are reduced by Q_3Q_2 and the total consumption of the commodity is also reduced from OQ_3 to OQ_2. Thus Q_3Q_2 $(= OQ_3 - OQ_2)$ is the consumption effect of the tariff. This, in turn, leads to a net loss of consumers' satisfaction equal to the area PP_1NB. Prof. Kindleberger calls the combined protective and consumption effect as *trade effect*. The imposition of PP_1 tariff has the effect of reducing the total volume of trade of the country equivalent of $OQ_3 - Q_1Q_2$.

3. **Revenue Effect.** the revenue effect is the change in government receipts as a result of the tariff. In the case illustrated in Fig. 1 initially the tariff is assumed zero at price OP. So when PP_1 import duty is levied, the revenue to the government is equal to the amount of the import duty multipled by the quantity of imports. The revenue effect is, therefore, $PP_1 \times Q_1Q_2$, or the rectangular shaded area R.

4. **Redistributive Effect.** The redistribution effect results from producers receiving a higher price for their commodity after the imposition of the tariff. This is shown in Fig. 1 by the area PP_1MA. This amount is a surplus over production costs and is an economic rent which goes to producers. According to Kindleberger the redistribution effect "is an addition to producers' surplus derived by subtraction from consumers' surplus". In this sense, the net loss to consumers' satisfaction as measured by the consumption effect is PP_1NB. Out of this, the amount shown by the area R is taken away by the government as revenue, and the loss of consumers' surplus is represented by the two traingles a and b. This loss of consumers' surplus represented by the two triangles a and b is neither transferable to the producers nor to the government and is called by Kindleberger as the "deadweight loss of the tariff." This may also be called the *cost of the tariff*. Thus the quadrilateral PP_1MA measures the redistributive effect of the tariff which goes to the domestic producers of the commodity.

5. **Balance of Payments Effect.** A tariff has a favourable balance of payments effect by reducing imports in the tariff imposing country and reducing exports

in the other country. Thus a tariff reduces the country's international expenditure and brings stability in the balance of payments. The balance of payments effect is illustrated in Fig. 1. Under free trade conditions, QQ_3 commodity is imported at OP price. The total value of imports is represented by the rectangle AQQ_3B. This represents a balance of payments deficit since the price paid by importers is the amount received by the other country. To remove this deficit, PP'_1 import duty is levied on the imported commodity. As a result, imports are reduced from QQ_3 to Q_1Q_2. The government gets a revenue equal to the area R. There is also improvementt in the balance of payments because the amount paid to the other country equals the area aQ_1Q_2b which is less than under free trade AQQ_3B.

6. Terms of Trade Effect. The terms of trade effect of a tariff is that it improves the terms of trade of country imposing it. This is illustrated in Fig. 2 when Panel (A) shows S_1 and D_1 as the supply and demand curves respectively of the exporting country England, and Panel (B) shows S_2 and D_2 the supply and demand curves respectively of the importing country Germany. Before the

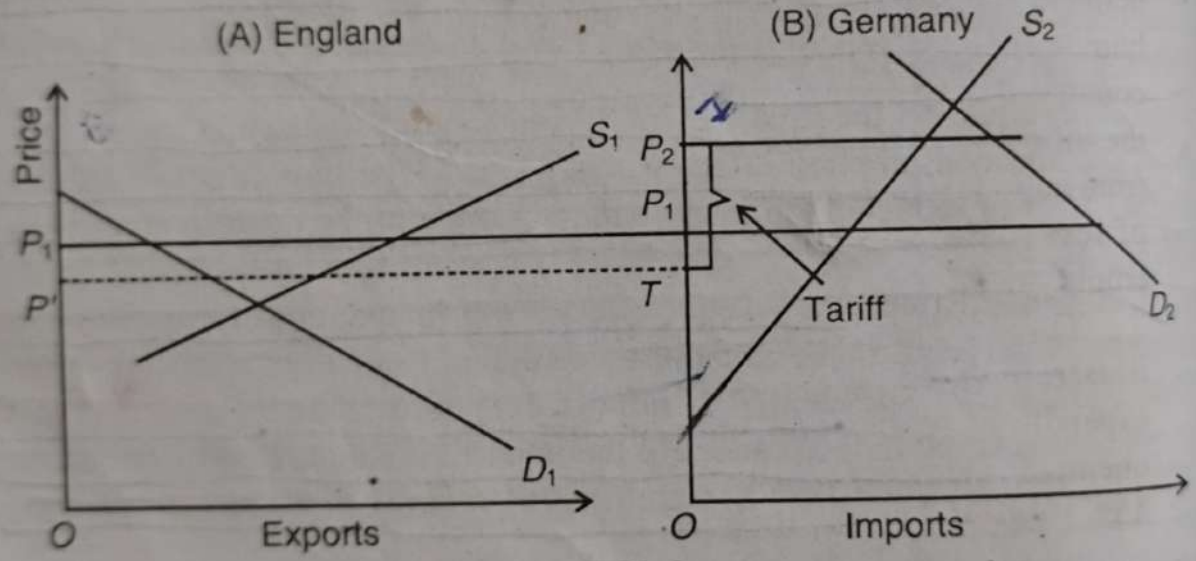

FIG. 2

imposition of a tariff by Germany, trade between the two countries is taking place at the price OP_1. Suppose Germany imposes tariff of P_2T amount on the imported commodity from England. This raises its price in Germany and the demand for it falls. On the other hand, its supply price in England falls with the decline in its export demand. Thus the price rises from OP_1 to OP_2 in Germany in Panel (B) and falls in England from OP_1 to OP' in Panel (A), as a result of the tariff. Of the total tariff of P_2T, a larger amount P_2P_1 is borne by the importer country Germany and P_1P' by the exporter country England. The terms of trade effect is that a tariff-imposing country improves its terms of trade by getting its imports cheaply in the sense that the exporter country is forced to pay a part of the tariff duty. "It is true that the consumer in the importing country has to pay a higher price. But this is offset, so far as imports are concerned, by the revenue effect. If the redistribution effect can be ignorned, the revenue effect, which is the tariff times imports after the imposition of the tax, is levied partly on producers in the exporting country." If the supply is very inelastic in the exporting country and

reduce its output, employment and income. As a result, the foreign country will curtail its imports from the home country. This means reduction in the exports of the tariff imposing home country which reduces its income and employment. This is called a *begger-thy-neighbour* policy. *Second*, If the tariff imposing country is able to raise its income and employment at the expense of the other country. *Third*, the other country may adopt retaliatory measures like tariff and countervailing duties which may counteract the income and employment effects in the home country.

2. Effects of a Tariff Under General Equilibrium

The effects of a tariff under the general equilibrium are studied in the case of a small country and a large country.

1. Effects of a Tariff in a Small Country. The effects of a tariff under the general equilibrium analysis are analysed in terms of the consumption effect, the production effect, and the terms of trade effect.

Its Assumptions. This analysis is based on the following assumptions :

(*i*) There are two trading countries, say England and the rest of the world, as represented by, say, Germany;

(*ii*) England is a home country which is small;

(*iii*) There are two commodities cloth and linen which they exchange;

(*iv*) Cloth is an exportable commodity of England and linen is its importable commodity;

(*v*) The incidence of the tariff falls exclusively on the tariff imposing country, say England by the full amount of the tariff.

(*vi*) Prices on the world market remain unchanged.

(*vii*) The revenue from the tariff is spent on consumption.

Explanation. Given these assumption, the imposition of an import tariff raises the domestic price of the importable commodity linen while the price of the exportable commodity cloth remains constant. Since England is a small country, it cannot influence the world price of linen.

Production and Consumption Effects. To explain the production effect of a tariff, take England which produces two commodities cloth and linen but specialises in the production of cloth and exchanges it for Germany's linen. Its