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An Iron Trade Sliding Scale

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Source: *The Economic Journal*, Vol. 19, No. 73 (Mar., 1909), pp. 122-133

Published by: Wiley on behalf of the Royal Economic Society

Stable URL: <http://www.jstor.org/stable/2220530>

Accessed: 27-06-2016 09:34 UTC

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The Economic Journal

NOTES AND MEMORANDA

AN IRON TRADE SLIDING SCALE.

THOUGH the theoretical advantages of the Sliding Scale as an efficient piece of mechanism for the adjustment of wages have not lost force or verity, the method itself is of much less importance than formerly, because of the immense reduction in the number of operatives whose wage rates are so regulated. The change has occurred principally through the abandonment of the scales in all the important coal-mining areas. The new trade unionism and the minimum-wage theory which have been responsible for the destruction of the mining scales, have not, as yet, obtained any considerable measure of support among iron-workers, and consequently their allegiance to the method remains unshaken. No doubt this is also due largely to the influence of the men's leaders, which is more complete and authoritative than recent experience has shown to be possessed by officials of some other trade unions; but there is no reason to suppose that the operatives themselves are less favourably disposed towards the method than the men whom they elect as office-bearers, for if there were any dissatisfaction concerning either principle or practice it is quite likely that the advice of leaders, however great their influence or important their past services, would be disregarded. Recently there have been occasions which seemed to prepare the way for the expression of any latent dissatisfaction there might have been, but none has been heard.

It would be a mistake to assume that the Midland scale, or rather the Midland Iron and Steel Wages Board, whose mechanism it is, has not suffered vicissitudes. There have been times when the Board has seemed to be in danger of dying of inanition, and, of course, the Sliding Scale, the supervision of which is the most important though not the only part of its work, would have disappeared with it had the worst fears been realised. Success itself is a source of weakness. From year to year wages are

regulated with such an absence of friction that there is a tendency amongst employers and employed to become, in a sense, unconscious of the Board's existence. The "ascertainments" of net average selling prices and the rates of wages which they carry become widely known; they are accepted without question as a rule; and there is a natural inclination to become neglectful and indifferent to the claims of the Board to the membership and support of every employer and operative in the industry. In the past long periods of smooth working have resulted in the membership and income being reduced; and yet all the time the Sliding Scale has governed the industry as thoroughly and completely as if every employer and operative remained in full membership. If they have no other effect, such conditions inevitably produce discontent among the most loyal, who fail to see the force of meeting the whole of the expense entailed by the Board's organisation, while others less mindful of their obligations benefit equally from its operations.

These, however, have not been the only difficulties. An awkward fact which prevents the Midland Iron and Steel Wages Board from carrying on its business undisturbed by considerations other than the condition of the industry in the area for which it legislates is the existence of a second iron-trade Sliding Scale—in the North-Eastern part of the country. It is an argument of the operatives' section (and exception to it has never been taken by the employers) that the labour involved in puddling a ton of iron is equally arduous whether performed in the Midlands or the North, and that accordingly the reward should be equal. The admission of the contention involves the constant watching of the Northern wage (at any rate on the part of the operatives), and complications have arisen as the result.

In recent years the relative character of the industry as pursued in the two districts has changed. In the North there is admitted to have been an improvement in the quality of the iron produced. Quality has not deteriorated in South Staffordshire, but the proportion of high-class special irons to ordinary irons has diminished as compared with a quarter of a century or even ten or fifteen years ago, owing mainly to the displacement of iron by steel. Because of this change, alone, it is not so easy as it used to be to secure equality of wage rates. And the difficulty has been still further increased by other circumstances characteristic of the industry in the two districts. There are fewer manufacturers in the North; that fact has facilitated agreements to maintain selling prices, and in the last few years these arrange-

ments have been singularly successful. In South Staffordshire and the adjoining districts, on the other hand, the greater number of firms, and the wider variation in the quality of their products, have proved hitherto an insurmountable barrier to the success of the many attempts to agree upon a basis selling price for the kinds of iron which bulk most largely in the returns, and therefore influence them most. The inevitable consequence is that in times of slackening trade Midland prices fall quicker than those of the North, and in a short time the Midland scale gives a lower wage per ton for puddling. When this happens there is naturally a request from the men for the restoration of equality. Twice in less than five years the Board has had to deal with this position. In 1904 it was felt necessary thoroughly to overhaul the Sliding Scale basis, and over a year was occupied in the work. The publication of the "ascertainments" of quantities and selling prices was suspended, as will be seen from the table below, and experimental "ascertainments" were made.

It is not necessary here to enter into a detailed description of the working of Wages Boards and the arrangement of Sliding Scales—probably most readers are familiar with the subject, and those who are not will find it fully dealt with in Professor Ashley's book, *The Adjustment of Wages*—but to bring out the point it may be mentioned that the Midland custom is to allow 1s. of wages for each pound sterling of net average selling price, and to add a "premium." For example, the scale worked under during the last three years is thus officially described:—

"Puddlers' wages shall be two shillings in excess of one shilling for each pound sterling per ton in selling price, and the fractional parts shall be regulated thus:—

						Wages.
From	over	2/6	to	5/-	...	3d.
"	"	5/-	to	7/6	...	3d.
"	"	7/6	to	10/-	...	6d.
"	"	10/-	to	12/6	...	6d.
"	"	12/6	to	15/-	...	9d.
"	"	15/-	to	17/6	...	9d.
"	"	17/6	to	22/6	...	1s.

The result of the experimental "ascertainments" during 1905 convinced the Board that no selection of manufacturers, whose returns are taken, would affect the average selling price appreciably, and that the scale could only be altered to meet the wishes of the operatives by increasing the "premium." This was done, and a new agreement on the terms already set out was entered into for two years. It is remarkable that this period has

barely elapsed before depression in trade has again caused disparity between selling prices, and, consequently, between wages rates awarded by the scales in the two districts. In June of this year the Midland rate fell out of relationship to the Northern rate; notice to terminate the agreement was given, and in about a month the Board had met, and, guided no doubt by the experience of 1905, had resolved upon a further increase of the "premium," making it 2s. 3d.

When the wages columns of the table given below are examined in conjunction with the notes concerning them the constancy of this difficulty will be apparent. During a considerable portion of the period covered by the table the scale has really been suspended—either the employers or operatives have given up the right to an alteration of wages, and this means, in effect, that the "premium" has been increased or reduced by the amount of the alteration abandoned. And yet the Midland scale must be described as completely successful. The explanation is the prevalence of a reasonable spirit of give-and-take. The unwritten law that wages in the Midlands should equal those in the North has been loyally observed. There has been some grumbling on occasions—what institution ever escapes?—but when this safety-valve has operated both sides have turned to the settlement of their difficulties without trace of bitterness or friction. If proof of this were needed it would be found in the fact that for about thirty-five years there has not been a general strike in the Midland iron industry, and probably the cases of dissatisfaction culminating in even small sectional stoppages (which are against the Board's rules) could be counted on the fingers of both hands.

It does not appear necessary to devote much space to detailed comment upon the figures in the tables, but one or two features may be mentioned. Statisticians will be particularly interested, no doubt, in the fact that the net average selling price is a "weighted average," and, as far as I have been able to discover, it has been so throughout the long existence of the Midland Board. The table giving full details for one year also shows very conclusively that bars are the staple product of the industry which the scale governs, and though the change in the number of firms whose returns are taken, and the consequent increase in quantities, has caused the absolute totals for other kinds to be either maintained or increased, personal experience suggests that this characteristic is likely to become more pronounced.

The table also affords a comparison of average selling prices

during two periods of activity. The relative prosperity of the two is not accurately measured by the difference in the averages, for high selling prices, though an indication of active trade, are always accompanied by, and to a greater or lesser extent are the consequence of, dear raw materials and swollen costs of production, with the result that the margin of profit is not strictly proportionate to the differences in prices. But still the juxtaposition of £9 18s. 8d. for July-August, 1900, and £7 10s. 6d. for September-October, 1907, is significant. Both these represent "boom peaks," and may be taken as indicative of the state of trade in the two periods. Unfortunately the table does not embrace a sufficient number of years to present two complete trade waves, or cycles, but the top of both waves is shown and the trough between them. The £6 3s. 9d. of September-October, 1904, is apparently not the extreme depth of the depression. In the succeeding two months, when the average was not ascertained and when wages were fixed by the simple process of following the ascertainment of the Northern Sliding Scale, the rate of wages sank to 8s. 3d. per ton, which in the ordinary course would have meant that the average price was down to at least £6, and it might even have gone to £5 17s. 6d. Another two months later saw wages restored to 8s. 6d., and that rate continued without variation during the whole of the interregnum. It is obvious, therefore, that the lowest point touched was in the winter of 1904-5, and that if the average for the remainder of 1905 were known and could be expressed in a curve the line would be fairly flat, with, perhaps, a slight upward tendency towards the end of the year. Assuming that the lowest average was £6 it is apparent that the improvement of 1906-7 was exhausted by the time it had made a difference of 30s. to the average. The table begins with £7 12s. 1d. for September-October, 1899, because that happens to be the earliest of my own records. It will be noticed that the average was already nearly 2s. per ton higher than the best average of 1907, and all who know the trade will be very confident that £7 12s. 1d. did not represent the beginning of the upward movement of that period. Yet, though the beginning of the wave is unrepresented there is shown an increase of £2 6s. 6d. per ton in the average before it was exhausted. Estimated by this standard, and after making allowance for the circumstances already mentioned, it is obvious that 1907 fell a long way short of 1900.

MIDLAND IRON AND STEEL WAGES BOARD.

Total quantities of "Finished iron" and steel, certified net average selling price, and rate of puddlers' wages.

Since January, 1902, the returns made to the Board's accountants have been "the weight and selling-prices of all classes of iron as rolled and delivered from the mills, sold and marketed, but excluding any which has been used up in other departments, and all steel." Prior to 1902 certain irons (mostly of a miscellaneous character) were excluded. These, on the only occasion when they were separately stated, totalled 1,665 tons for a period of two months.

The number of firms making returns to the accountants has varied as follows:—

Sept.-Oct., 1899 to July-Aug., 190212 firms.

Sept.-Oct., 1902 to Sept.-Oct., 190411 firms.

Nov.-Dec., 1904 to Nov.-Dec., 1905.....None; Sliding Scale basis being rearranged.

Jan.-Feb., 1906 to end of period covered.....17 firms.

Period.	Total tons.	Net average selling price.	Puddlers' wages per ton.	Period.	Total tons.	Net average selling price.	Puddlers' wages per ton.
1899.		£ s. d.	s. d.	1904.		£ s. d.	s. d.
Sept. and Oct.....	29167	7 12 1'6	9 0	Jan. and Feb.....	26424	6 10 2'9	8 6
Nov. and Dec.....	29270	8 3 9'5	9 9	March and April..	27090	6 8 5'5	8 6(f)
1900.				May and June.....	26863	6 7 2'2	8 6(g)
Jan. and Feb.	28217	8 14 7'9	10 3	July and August...	25292	6 14 11'5	8 6
March and April...	28467	9 6 6'3	10 9	Sept. and Oct.....	27499	6 3 9'1	8 6
May and June	26930	9 15 4'7	11 3	Nov. and Dec.....	No returns.		
July and August....	21787	9 18 8'1	11 3(a)	1905.			
Sept. and Oct.....	26189	9 15 0'4	11 3	Jan. to Dec.			
Nov. and Dec.....	23135	9 0 7'7	10 6	1906.			
1901.				Jan. and Feb.....	38053	6 12 7'5	8 9
Jan. and Feb.	23641	7 19 0'4	9 6	March and April..	34844	6 18 3'1	9 0
March and April...	25678	7 7 8'1	9 0	May and June.....	35492	6 18 6'8	9 0
May and June	28183	6 19 2'5	9 0(b)	July and August...	32114	6 16 2'6	8 9
July and August....	24326	6 17 0'4	8 6	Sept. and Oct.....	37790	6 17 5	8 9
Sept. and Oct.....	29810	6 18 0'8	8 6(c)	Nov. and Dec.....	37965	6 18 9'8	9 0
Nov. and Dec.....	26358	6 19 5'3	8 6	1907.			
1902.				Jan. and Feb.....	40394	7 2 8'8	9 3
Jan. and Feb.	29529	6 17 10'1	8 6	March and April..	37496	7 7 0'7	9 3
March and April...	28899	6 17 10'3	8 6	May and June.....	38310	7 7 6'2	9 6
May and June	26828	6 17 9'8	8 6	July and August...	37129	7 8 6'9	9 6
July and August....	27673	6 18 4	8 9(d)	Sept. and Oct.....	39826	7 10 6'9	9 6
Sept. and Oct.....	31202	6 18 7'7	8 9	Nov. and Dec.....	36813	7 9 9'8	9 6
Nov. and Dec.....	26625	6 19 8'2	8 9	1908.			
1903.				Jan. and Feb.....	36743	7 4 11'4	9 3
Jan. and Feb.	28719	6 17 11'9	8 9	March and April..	33077	7 0 3'3	9 0
March and April...	27350	6 17 4'3	8 9(e)	May and June.....	31436	6 16 0'2	8 9
May and June	28686	6 17 1'8	8 9	July and August...	32354	6 9 8'7	8 9(h)
July and August....	27177	6 15 10'8	8 9	Sept. and Oct.....	37359	6 6 11'1	8 6
Sept. and Oct.....	31356	6 15 3'8	8 9	Nov. and Dec.....	39908	6 6 5'6	8 6
Nov. and Dec.....	25849	6 14 9'7	8 9				

COMPLETE DETAILED RETURN FOR ONE YEAR.

An idea of the elaborate nature of the figures summarised above will be obtained from the following tabulation of all the details of the returns for 1907:—

Period.	Bars.		Angles and Tees.		Plates and Sheets.		Hoops, Strip & Miscellaneous.		Total quantity, tons.	Net average selling price.	Puddlers' wages per ton.
	Tons.	Average price.	Tons.	Average price.	Tons.	Average price.	Tons.	Average price.			
1907.		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.	s. d.
Jan. and Feb.	26544	7 2 5'5	930	7 6 8'2	2143	8 1 1'3	10777	6 10 5'1	40394	7 2 8'8	9 3
Mar. and Apr....	25353	7 6 9'4	1068	7 9 8'4	1987	8 4 7'5	9087	7 3 8'2	37496	7 7 0'7	9 3
May and June....	26070	7 6 7'8	1021	7 12 9'5	1898	8 6 7'1	9819	7 5 5'9	38310	7 7 6'2	9 6
July and Aug....	24209	7 7 8'7	1029	7 12 0'1	1854	8 6 0'4	10036	7 7 0'6	37129	7 8 6'9	9 6
Sept. and Oct....	20711	7 9 9'2	825	7 14 11'5	1977	8 7 7'5	10311	7 9 0'6	39826	7 10 6'9	9 6
Nov. and Dec....	25171	7 9 6'2	792	7 13 0'4	1870	8 8 9'8	8979	7 7 5'6	36813	7 9 9'8	9 6

NOTES CONCERNING THE WAGES COLUMNS.—The Sliding Scale in operation at the commencement of the table allowed 1s. wages for each pound sterling of average selling price, dealt with fractions of a pound in the way set out above, and added a premium of 1s. 6d. Thus, the 9s. per ton for September-October, 1899, was made up as follows:—Average price, £7 12s. 1d.; £7 carries 7s. wages; 12s. 1d. carries 6d. wages; premium, 1s. 6d.; total, 9s.

The rates of wages are attributed to the same months as the figures on which they are based, but it should be explained that the rate at which the men have been paid during the two months is not necessarily that shown. For instance, the 9s. per ton (an increase of 3d. per ton) given by the average for September-October, 1899, did not come into operation until December 4th of that year. From December 4th to February 4th, 1900, the rate was 9s.; and from February 5th to April 7th, 1900, the rate given by the November-December, 1899, average (9s. 9d.) was in force. The explanation is furnished, of course, by the time occupied in the clerical work of abstracting, compiling, and checking the return. The September-October, 1899, figures were submitted to the Wages Board on November 30th, and the November-December, 1899, figures on January 25th, 1900. It is necessary in tabulation to keep together the average selling prices and rates of wages carried by them, but the difference in the periods to which wages apply should not be overlooked. It sometimes has an important bearing on the policy of the board.

(a) An instance of the effect alluded to above is furnished by the returns from July to October, 1900. The July-August average of that year (£9 18s. 8d.) if tested by the scale then in operation will be found to give 11s. 6d. per ton wages, whereas the rate declared by the Standing Committee was 11s. 3d. This return was submitted to a meeting of the committee on September 19th, 1900, and if the September-October figures are examined it will be seen that the average selling price had dropped 3s. 8d. per ton from the average of the previous period. The September-October average was not known when the Board met, but obviously the committee were considering a high-water average at a time when the personal experience of the manufacturers on the committee showed them that the tide had actually turned. Probably the set back in market prices was much greater than the average reduction of 3s. 8d. per ton suggests. Both the rise and the fall of the average are slower

than market movements. At the beginning of a rise there is almost invariably an accumulation of contracts taken at old, low prices. Until these come to an end the average selling price is kept down, below the prevailing level of market prices. At the conclusion of a spell of prosperity, when demand begins to slacken and prices to fall, there is, on the other hand, as certain an accumulation of high-priced contracts and until these are fulfilled the average is kept above the prevailing market level of prices. The latter conditions were experienced in September, 1900, and the Standing Committee were faced with an awkward position—the right of the men to an increase at a time when prices had declined and were still declining. The manner in which the difficulty was settled is shown in the following resolution of the committee :—

“That in view of the fact that a further advance in wages would make the difference between the Northern and Midland districts wider than in any time past, it is considered to be in the interests of the trade of this district to waive any advance on the present occasion, especially as on nine former occasions the employers have made a similar concession as specified below.”

Particulars followed of the nine occasions on which the accountant's certificate gave a reduction of 3*d.* per ton in wages which was not claimed by the employers. The resolution, it will be observed, makes no reference to circumstances to which attention has here been called, and gives as the main reason for the decision the disparity between Northern and Midland wages. The latter were disproportionately high, and this fact is of interest in view of the points brought out by the succeeding notes.

(b) The extent of the fall in prices during the succeeding year completely reversed the position and so after considering the figures for May and June, 1901 (on July 31st) the Standing Committee resolved :—

“The operatives having, on a recent occasion, waived their right to an advance of wages to which they were entitled the employers under present circumstances waive their right to a reduction on the present occasion.”

Had the Sliding Scale been adhered to the reduction would have been 6*d.* per ton.

(c) The attempt to maintain equality between Northern and
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Midland wages was not destined to succeed. In this period 8s. 6d. was the rate given by both scales. The apparent contradiction in this statement is explained by the fact that in the North there are certain allowances or "extras" which make a rate of 8s. 6d. per ton there equal, as a reward for labour, to 9s. in the Midlands. "Equality" between the two districts is therefore taken as secured when the Midland rate, whatever it may be, is 6d. per ton more than the Northern. Naturally the operative members of the Standing Committee insist on the maintenance of this "equality," or "relationship" as it is called. The fact that both scales gave 8s. 6d. caused dissatisfaction and at the operatives' request the Standing Committee instructed the Board's accountants to ascertain the production and price of certain irons not hitherto included in the return. For November-December, 1901, these totalled 1,665 tons, and the price at which they were sold would have increased the average by 9·8d. per ton to £7 0s. 3·1d. It was recognised that the inclusion of these irons would not have restored "relationship" of wages in the two districts, but it was resolved to include them in future.

(d) In January-February, 1902, Northern wages fell 3d. per ton, while those of the Midlands were unaltered. The inequality was thus halved. This condition was continued by the ascertainment of March-April and May-June. When the latter figures were under consideration the operatives' representatives made a formal application for the Sliding Scale basis to be suspended in order that the "relationship" to the North might be restored. The employers' representatives promised that if the next ascertainment did not bring about equality the scale should be suspended and wages increased. The July-August average left wages where they were and so the promised increase was given. In effect it amounted to an increase of the "premium" from 1s. 6d. to 1s. 9d., but the alteration was not formally made; probably in order that the 3d. might remain a temporary bonus which could be withdrawn in the future if circumstances justified it.

(e) The fall in the Midland average for this period would have given a reduction of 3d. per ton in wages, but in accordance with the undertaking to maintain the "relationship" to the North there was no alteration. This again, in effect, was equivalent to another addition of 3d. to the "premium," making it 2s. per ton.

(f) Throughout the period from March-April, 1903, to March-

April, 1904, it remained necessary to give this extra 6*d.* per ton, but there seems to have been some discontent on the part of the employers. At any rate, when the last-mentioned ascertainment was under discussion

“Some of the manufacturers were strongly of opinion that wages ought to be reduced to the Sliding Scale level apart from any consideration as to relationship to those of the North. . . . They contended that whatever may have been the state of things years ago the Northern ‘extras’ do not now prevail and in addition there are circumstances, which formerly did not exist, which lead to the maintenance of the average selling price there.”

As a result it was agreed to make special inquiry concerning Northern “extras.” The suggestion that they had been abandoned was promptly repudiated, and, as it gives an interesting and most suggestive idea of the nature of the “extras” and why they are paid, the material sentences from the Northern Secretary’s reply may be quoted :—

“ the daily prize money of 1*s.* per furnace for full heats is paid by the firms connected with this Board. There is practically no level-handed work at present, and, therefore, level-handed money is not paid. As regards the Monday working money, this is paid by those firms who work on Mondays, but less than half the members of the Board do so.”

In face of such a letter the employers who raised the question had to consent to the continuation of the addition of 6*d.* to the rate of wages given by the Midland average.

(*g*) In the succeeding period they had to go even farther. The average selling price sank sufficiently to give a reduction of 3*d.* in wages which under the scale would have been 7*s.* 9*d.* They were retained at 8*s.* 6*d.*, and the virtual addition to the “premium” thus became 9*d.* per ton.

These conditions continued under the two following ascertainties, but probably it was their experience in connection with “extras” (mentioned under note (*f*)) that caused the operatives’ representatives to give notice to end the Sliding Scale so that a new basis might be arranged. Obviously it was undesirable from their point of view that there should be anything which suggested that they were receiving larger wages than they were

legitimately entitled to. By common consent it had long been admitted that a specified relationship should be maintained, and anything which caused its maintenance to bear the appearance of a "favour" rather than a "right" was naturally objectionable to the men. The overhauling of the scale was accordingly taken in hand. For a year there were no published returns, and in the end the "premium" was raised from 1s. 6d. to 2s.; while the number of firms whose figures are taken was increased to seventeen.

In June of last year Midland wages again fell out of "relationship," and it was necessary to increase the "premium" to 2s. 3d., the first payment of that amount being in connection with the July-August ascertainment.

It may be interesting, as a conclusion, to illustrate the form of a Wages Board announcement and an accountants' certificate by quoting the material parts of those for May-June, 1908:—

Midland Iron and Steel Wages Board.

Gentlemen,—We append copy of Messrs. B. Smith, Son, and Wilkie's report for the two months ending June 30th, 1908, and beg to inform you that in accordance with the Sliding Scale arrangements, the wages for puddling will be 8s. 9d. per ton, and all other mill and forge wages will be reduced 2½% from Monday, August 3rd, to Saturday, October 3rd, 1908.

Yours faithfully,

DANIEL JONES, WILLIAM AUCOTT, Secretaries.

We beg to report that we have examined the returns of sales of iron made by the seventeen selected firms for the months of May and June, 1908, and have verified the same with their books.

We certify the average net selling price to have been £6 16s. 0·28d. per ton.

Below is a statement of the several classes of iron sold and the average net selling price of each.

Description.	Weight.				Percentage of Totals.	Average net Price.		
	Tons	cwt.	qr.	lb.		£	s.	d.
Bars... ..	21,591	3	2	11	68·68	6	6	1·19
Angles and Tees...	725	18	2	20	2·31	7	1	4·19
Plates and Sheets	1,476	16	0	26	4·69	7	14	0·66
Hoops, Strips, and Miscellaneous...	7,642	12	1	20	24·32	6	11	9·83
	31,436	10	3	21	100·00	£	6	16 0·28

The following table shows the figures for the previous two months, March and April, 1908 :—

Description.	Weight.				Percentage of Totals.	Average net Price.		
	Tons	cwt.	gr.	lb.		£	s.	d.
Bars	22,791	15	3	17	68·90	7	0	10·59
Angles and Tees... ..	1,092	11	0	20	3·30	7	5	8·94
Plates and Sheets	1,376	17	2	25	4·16	7	14	4·20
Hoops, Strips, and Miscellaneous ...	7,816	14	1	23	23·64	6	15	3·32
	33,077	19	1	1	100·00	£7	0	3·34

A. DUDLEY EVANS

A NOTE ON THE INCIDENCE OF PROTECTIVE IMPORT DUTIES.¹

IT is not unusual for a country which imposes import duties to produce itself the articles which it taxes (for instance, when its aim is protection), and it is not unusual for the countries trading with it to produce also for themselves, or procure from yet other countries, articles of the same kind as those which they import from the taxing country. These are the circumstances which I propose to investigate in the present article.

Let there be (i.) two countries (P , the taxing country, and Q), (ii.) two commodities (A , the taxed commodity, and B), and suppose (iii.) that both P and Q produced both A and B before the imposition of the import duty and continued to produce both commodities afterwards. In making the third assumption in our abstract treatment we are merely limiting the broad application of our results to cases in which a country levying an import duty has not succeeded in completely ousting competitors as regards her exports, and goods which have paid the import duty meet in the markets of the taxing country with untaxed rival goods with which they had also been in competition before the import duty was levied. If gains and losses in the taxing country be reckoned in terms of some non-exportable commodity, or service, the quantity of which is not affected appreciably by changes in foreign trade (say domestic service), the effect of an import duty upon the taxing country becomes measurable.

Cost of transport being ignored, the ratio between the costs of production of A and B must have been identical in P and Q

¹ Mr. Bickerdike's speculations on the incidence of incipient import duties [ECONOMIC JOURNAL, Vol. VI, p. 529] are the prime occasion of this note, but I deal only with trade of a particular, though not of an exceptional, kind.