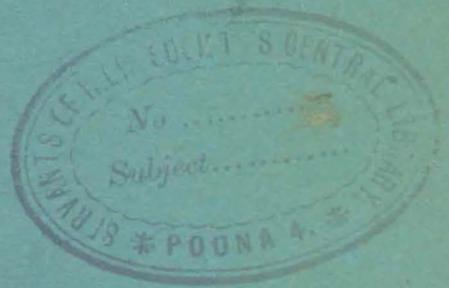


THE RATAN TATA FOUNDATION

(University of London)

MEMORANDA ON PROBLEMS OF POVERTY

NUMBER I.



*Some Notes on the Incidence of Taxation  
on the Working-class Family*

BY

F. W. KOLTHAMMER, M.A.

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THE RATAN TATA FOUNDATION has been instituted in order to promote the study and further the knowledge of methods of preventing and relieving poverty and destitution. For the furtherance of this purpose the Foundation conducts inquiries into wages and the cost of living, methods of preventing and diminishing unemployment, measures affecting the health and well-being of workers, public and private agencies for the relief of destitution, and kindred matters. The results of its principal researches will be published in pamphlet or book form; it will also issue occasional notes on questions of the day under the heading of "Memoranda on Problems of Poverty." In addition to these methods of publishing information, the officers of the Foundation will, as far as is in their power, send replies to individual inquiries relating to questions of poverty and destitution, their causes, prevention, and relief, whether at home or abroad. Such inquiries should be addressed to the Secretary of the Ratan Tata Foundation, School of Economics, Clare Market, Kingsway, W.C. The officers are also prepared to supervise the work of students wishing to engage in research in connection with problems of poverty. Courses of lectures will also be given from time to time: the first course, introductory to more advanced investigation, will be given by the Director of the Foundation at the London School of Economics in Michaelmas, 1913. These courses will be open to the public.

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INTRODUCTION.

APART from its indirect effects, imperial taxation in this country falls upon the poorer classes, principally, though not exclusively, in the form of certain excise and customs duties. As affecting poverty, these duties may be classed under three heads. There are, first, duties on common articles of food—sugar, cocoa and coffee, tea and dried fruits. These, with the possible exception of dried fruits, may be regarded as taxes on what are, according to English modes of living, the common necessities of life. They directly increase the cost of living, and therefore have an evident bearing upon the problems of poverty. One of the first objects of this memorandum is to ascertain the proportion of the weekly income of a working-class family which they absorb. There is next the tobacco duty, which is a tax on the simplest and commonest luxury enjoyed by all classes. There are thirdly, the duties on beer and spirits, which many people would place in a different class as taxes on superfluities, and unless moderately used, injurious superfluities. It is important, however, to determine the actual contribution made by the working classes to the Imperial Revenue under this head. The taxation on food is sometimes defended as an equitable contribution on the part of the working classes to the national burdens; and before we can determine whether this is a valid argument for such taxation or not, we must know as accurately as possible the magnitude of their contributions in other ways. Accordingly, in this paper an attempt is made to set forth, as well as available evidence will allow, the contribution to the Revenue made by working-class families of various grades of income under each of these three heads and under all of them together. To obtain the best available information on these points is at least one of the prerequisites of any equitable readjustment of taxation.

I. METHOD AND SOURCES.

(1) It is of course merely proper that doubt should attend the reading of a slight memorandum such as this. An attempt has, however, been made as far as possible to minimise the disadvantages of a succinct treatment by adopting an arrangement of the subject that shall exhibit clearly the process of approximation to a reasonably correct solution. It seemed better to advance on the stepping-stones of rejected results, showing frankly the causes of their rejection, than to present the final conclusions, such as they are, without either preparation or qualification. The graphical representations are added in order that the significance of the statistical tables may be promptly seen and appreciated. It may perhaps be added that the most useful preliminary groundwork for enquiry is contained in the annual Statistical Abstracts of the Board of Trade and in the Fiscal Blue Books. But the reader will find that only personal investigation among consumers and traders can supply those corrections which statistics based on general and universal figures always need.

(2) INCIDENCE OF TAXATION. The only problem upon which any initial pronouncement is needed is that of incidence. Throughout this paper it is taken for granted that indirect taxation is ultimately paid by the consumer; indeed, in dealing with any fairly stable system of indirect taxation, this assumption is wholly reasonable. It

would be inappropriate here to discuss questions that belong to economic theory, but one may point out that in this matter its hypothetical results appear to be confirmed by the facts of experience.<sup>1</sup>

(3) SUGAR—A COMPLEX CASE. The real difficulty in the problem of incidence, so far at least as our own tax system is concerned, occurs principally when one comes to the case of a marketed product of which a component raw material is taxed, and here it is probably rather a difficulty of effect than of incidence that arises. The question comes about in this way. Granted that the consumer pays the tax, does he pay more than the tax? Thus, sugar of the highest degree of polarization is taxed 22d. per hundredweight. It is sold retail by the pound. The retailer obviously can, and actually does, charge not '2d. but '25d. per lb.; at any rate he does this on the smaller purchases. Buyers of larger quantities pay less from two points of view. They pay less marketing expenses, and also less than '25d. tax per lb. of the taxed article. This mode of reasoning will apply to all cases in which a wholesale tax produces what our coinage allows us to call a retail "surd." Not only so, for the consumer also pays, it would seem probable, a profit on that part of the dealer's or producer's unfixed capital which is from time to time locked up in the taxed article when once it is removed from the bonded warehouse, and the amount of this will vary according to the rate of turnover.<sup>2</sup>

(4) SUGAR—CONTINUED. The problem thus introduced is this: What happens to the tax when the taxed article enters as a raw material into production? Keeping to our example of sugar, we know that its indirect consumption is very considerable. It is a raw material for beer, jam, confectionery, bread, and still to some extent for blacking. Does the small consumer also in this case pay to the nearest higher unit of coinage, on the ground that quantities are more easily divisible than pence? At first sight it would seem so. But in view of the fact that sugar of lower polarization, and therefore of less taxation, is here in question, it may reasonably be urged that he will not so pay. Thus used, sugar is only one of the items in a costing process, and the difference between a tax on a pound of it and the nearest higher currency fraction of a penny will tend to be made up by the fractional elements in other items of the cost account. In other words, '25d. is probably rather too high a rate of taxation to assume even for the small consumer of sugar and sugared articles.

It is, however, worth while to point out that, whatever error may be involved in taking the taxation on sugar at a farthing per pound, it is an error very small compared with the sum total of working-class family taxation. Further, it is an error which, being practically uniform, does not obscure the presentation of the fact that our specific indirect taxation is, as all such taxation must be, regressive in character—

<sup>1</sup> The average import prices of tea, for an example, are shown below in pence per pound:

1908	1909	1910	1911
7'96	8'16	8'23	9'00

Since these averages are not weighted according to the amounts of different qualities of tea which are consumed, the lowest qualities (which are also the largest quantities) in any given year must show a price appreciably below the average price for that year. In other words, far the largest amount of tea comes out of bond at costs that are much less than thirteen pence per pound. Now, though tea can be obtained by retail for less than 16d. per lb. (a considerable amount retails at 14d.), the biggest portion of working-class consumption is of tea at 16d. and over. In Lancashire, where anything up to 2d. of co-operative "dividend" appears in the price, and where the standard of working-class comfort is relatively high, much tea is retailed at even 22 and 24 pence per pound; and certain estimated cost accounts that I have received from blenders and retailers make it quite clear that between 13 or 14 pence (that is the average import price plus the tax) and the dominant retail prices there is a margin of ample width for the transition from wholesale to retail, and the expenses of blending and marketing the product. Nor can I find any reason for supposing that what is true of tea is less true of other taxed articles.

<sup>2</sup> The consumer of small quantities of taxed goods does not always pay directly in cash the whole of the tax. That he may pay in quality is obvious, but it is not so generally known that he frequently pays in quantity. A chest of tea weighs, often enough, more retail than wholesale, much as there are more than 40lbs. in a 40lb. cheese! Probably, however, these reflections belong rather to the theory of trading than to that of taxation. It may be noted that in towns that do not use the farthing "two-pounds-for 4½d. sugar" is sold by the pound to regular customers at 2½d. and 2d. alternately, and 3½d.-per-ounce twist is similarly sold by the half-ounce at 2d. and 1½d. alternately. The casual purchaser of course always pays at the higher price.

that it presses more heavily on the slighter incomes. Lastly, it will become clear that many other problems suggested by the subject are of vastly greater importance. At any rate, to the extent to which the problems of effect and incidence arise, the line of thought adopted by the writer will always be clearly stated.

## II. FOOD TAXATION.

(5) For any attempt to estimate the facts of food taxation the most obvious sources of information, indeed the only sources until the recent interest in "family budgets" caused collections of these to be made, lie in the Statistical Abstracts, of which the latest is Cd. 6399. It would seem that from the figures which show the quantities per head of taxed foods retained for home consumption we could reach a result at least approximately correct. The figures in question for each year from 1908 to 1911 are shown in Table I. In those cases in which we are given a composite total (*i.e.*, where the taxation returns combine the proceeds of taxes on 2 or more articles) the detailed figures which give import totals will enable us easily to resolve it into its constituent parts. Thus, prepared cocoa varies but little from 20% of the whole cocoa class; and currants, raisins and dried fruits (which are taxed at different rates) show consistently the following proportion:—

Currants : raisins + dried fruits :: 2 : 1.

I. : TABLE.

TAXED FOODS RETAINED FOR HOME CONSUMPTION—LBS. PER HEAD PER ANNUM.				
	1908	1909	1910	1911
Cocoa, raw and prepared ... ..	1'28	1'45	1'50	1'60
Coffee ... ..	'66	'67	'65	'62
Currants, Raisins and Dried Fruits...	4'62	4'88	4'64	4'89
Sugar, equivalent of refined ... ..	77'19	80'42	78'01	80'24
Molasses ... ..	5'85	6'66	6'46	6'48
Tea ... ..	6'24	6'36	6'39	6'48
Chicory ... ..	'18	'18	'17	'175

(6) THE NORMAL FAMILY AND ITS TAXATION. Let us take a hypothetical "normal family" of five and assume that its consumption is five times the per-head consumption given in Table I. Since the average family is slightly more than five, allowance is thereby made for the somewhat less consumption of very young children.<sup>1</sup> Setting out the annual family consumption of these foods, on the basis of the figures for 1911, we may found on them a preliminary answer to our inquiries. It is given in Table II.

II. : TABLE.

COMMODITY	FAMILY CONSUMPTION PER ANNUM, LBS.	TAXATION	
		RATE	AMOUNT—PENCE
Cocoa ... ..	8'00	{ 6'4 at 1d. per lb. 1'6 (see Fin. Act. '01)	10
Coffee ... ..	3'10	1'5d. per lb.	5
Currants ... ..	16'30	24d. per cwt.	5
Raisins and Dried Fruits...	8'15	84d. per cwt.	7
Sugar ... ..	401'20	22d. per cwt.	98
Molasses ... ..	32'40	10d. per cwt.	5
Tea ... ..	32'40	5d. per lb.	163
Chicory ... ..	'875	159d. per cwt.	2

TOTAL FAMILY TAXATION—PENCE PER YEAR ... .. 295

(7) EQUIVALENT TREASURY RECEIPTS. It may be noted that the revenue from

<sup>1</sup>A note on the various taxed commodities explaining the different margins between the rates of the taxes and the estimated amounts paid, may assist the reader. Cocoa: the best sorts are sold at a very slight margin over cost, hence the inferior sorts probably take something out of quality, and also in actual cases known to

these sources in the same year (1911-12) gives us equivalent figures about 275 pence per five average consumers or per family. The difference between that sum and our own estimate of 295d. suggests that on these taxed foods the consumer pays 20d., or between 7% and 8% more than the national coffers receive; at any rate that would be so if 295d. could be guaranteed a correct estimate of this payment. We called that figure an underestimate in the previous paragraph. Now it is customary among economists, I believe, to assume that the difference between the sum which the consumer pays and that which the State receives is somewhere in the neighbourhood of 12%, though none of them has actually worked this out in detail. If they are right, the total family taxation should appear as approximately 308 pence, or about a shilling more than the 295 pence at which we put it. Our own estimate then apparently errs, as it was intended that for safety it should err, on what, it must be admitted, is in this particular connection the right side.

(8) THE EXTENT OF REGRESSION. So long as we bind ourselves to these figures, only one further step in analysis is possible, namely to show to what extent, since they refer to universal and therefore regressive taxation, the taxes which they represent press more heavily on the poorer family groups. The following table and diagram will make this clear. Only one assumption is made, to the effect that, throughout the year of 52 weeks, consumption does not vary, although the working year is—perhaps too highly—estimated at 48 weeks. If it should be more reasonable to assume that consumption is less during those four weeks which constitute the difference between the living and the working years—though I believe that such expenditure as that on clothes, boots, saving and so forth, suffers long before the outlay on food is diminished—possibly the fact that the year-end brings with it transient but real increase in consumption sufficiently makes up the difference for us to adopt the annual averages with equanimity.

(9) REGRESSION ILLUSTRATED.

III. : TABLE AND DIAGRAM.

COLUMN A—Income of family in shillings per week.  
COLUMN B—Percentage of income deducted by food taxation.

A	B	A	B	A	B	A	B
		21	2'44	31	1'65	45	1'14
		22	2'33	32	1'60	50	1'02
		23	2'23	33	1'55	55	'93
		24	2'13	34	1'51	60	'85
		25	2'05	35	1'46	70	'73
		26	1'97	36	1'42	80	'64
		27	1'90	37	1'38	90	'57
18	2'84	28	1'83	38	1'35	100	'51
19	2'70	29	1'77	39	1'32		
20	2'56	30	1'71	40	1'28		

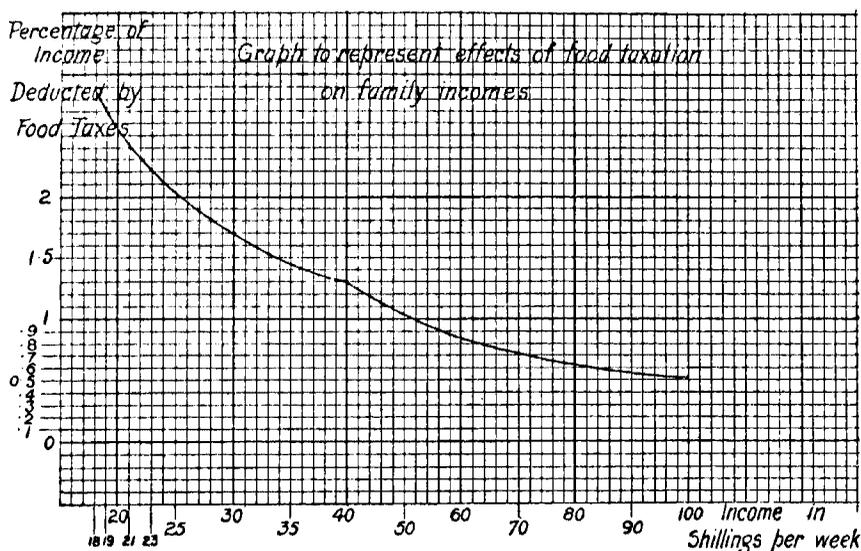
NOTE.—In the diagram below, the graph for incomes from 40/- to 100/- per week is "telescoped."

(10) A CORRECTION INTRODUCED. Keeping still to the more obvious sources of information, one may introduce in this place a correction by carefully examining the census reports. These show that the average household varies not only considerably—a fact this of which all are aware—but also consistently from one industrial area to another. By the word "industrial" are meant those areas in which the professional, commercial, and domestic-servant classes together do not reach, or only very slightly exceed, say, 5%, or 50 per 1000 of the whole population.

me, out of wages. Coffee: the consumption in cafés is enormous, and growing at the expense of beer; it is seldom retailed in very small quantities. Currants: the retailer's margin makes 5d. (see Table II.) very probably an underestimate; the same applies to raisins. Sugar: a small percentage of the consumption of sugar is charged at less than 25d. per lb. Tea: purchasers in very small quantities pay more, very frequently in weight if not in quality, than the amount allowed. Chicory: seldom sold save in small quantities; mostly already mixed with coffee by the retailers. All: the amount of taxation entered errs on the side of underestimation (see paragraph 11).

(11) TYPICAL HOUSEHOLDS IN DIFFERENT AREAS. Thus, in the case of Blackburn, Bolton, Burnley, Bury, Heywood, Oldham, Preston and Rochdale, the Census reports of 1901—corroborated in this connection by as much of the 1911 Census as has

## IV.: DIAGRAM.



appeared—show an average population of 451 to each 100 occupied houses, and the widest variations from this average are 467 in Bolton and an abnormally small 412 in Rochdale. The figures are as follows:—

Blackburn.....	465	Burnley.....	458	Preston.....	467
Bolton.....	467	Heywood.....	428	Rochdale.....	412
Bury.....	457	Oldham.....	459	Average.....	451

In the West Riding of Yorkshire the average is about a dozen less, thus:

Bradford shows a population of 436 for every 100 occupied houses;					
Brighouse	"	"	444	"	"
Halifax	"	"	421	"	"
Huddersfield	"	"	425	"	"
Keighley	"	"	456	"	"

The figures for the counties of Yorkshire and Lancashire respectively are 459 and 497.

Coming now to Staffordshire, we find in the Potteries and in the Black Country a not less significant uniformity, and an average result which gives each 100 households about 50 children more than they possess in the Lancashire towns, and 60 more than in the Yorkshire towns.

TOWNS IN THE POTTERIES		TOWNS IN THE BLACK COUNTRY	
Burslem.....	506	Walsall.....	505
Hanley.....	508	Wednesbury.....	499
Longton.....	511	West Bromwich.....	504
Stoke.....	507	Wolverhampton.....	489
Tunstall.....	518		

The figures for South Wales, though they are, for reasons which need not be given here, less valuable for purely statistical purposes, are so striking that they must also be recorded.

Barry.....	573	Cardiff.....	588	Merthyr.....	534
Rhondda.....	598	Pontypridd.....	552	Swansea.....	521

(12) **THEIR DIFFERENCES SIGNIFICANT.** The importance of these results, apart from their sociological aspect, from the point of view of *local* taxation is obvious at first sight. They show for instance quite clearly that each hundred householders in the Potteries have to meet a far greater outlay on elementary education than each hundred in the West Riding towns. But from the restricted point of view of imperial taxation the following deductions are important.

(a) The average figures given in paragraph 9 exaggerate the burden on some areas and minimise it on others.

(b) Those areas which find the compulsory local government activities most burdensome, and the optional ones, however desirable, most difficult, are also the areas on which imperial taxation falls most heavily.

(13) **TAXES ON DOGS, CARDS, etc.** The taxation on alcohol and tobacco we must reserve for later treatment, but several not unimportant items call for consideration in this place. "The sentinel that guards the poor man's door" will, if the poor man's little be so precious that he keep one, add 90 pence per annum, equal to 30% of his food taxation; a monthly bottle of patent medicine at the cheapest rate will add 6%: a pack of playing cards every six months, 2%, and these taxes too are regressive.

(14) **WHICH MUST BE OMITTED.** While, however, it is important not to lose sight of the items of the preceding paragraph, and even more important to notice the strange consistency with which the average household varies its size from one area to another, no table or diagram can represent the deviations from the average which are thus caused. It helps us little to notice that there is apparently one tax-paying dog to every 200 households, and similarly one pack of cards. Such facts are interesting without being useful. With thus much mention, therefore, they may be dismissed.

(15) **CRITICISM OF THESE RESULTS.** The most obvious criticism to which the results so far achieved are open, depends on the fact that, even if it is reasonable to assume a "normal family," family consumption itself varies so much from household to household that our figures conceal as much of the truth as they reveal. It is obvious that the poorer families will not consume the taxed foods up to the average amounts. And, apart from this, differences in kind as well as in amount of consumption have to be considered. Thus, if coffee and tea be to any extent what economic theory dubs "substitutes," tea-consuming families will pay more than three times as much on their breakfast-table beverage as coffee-consuming families.

(16) **COLLECTED FAMILY BUDGETS.** Criticisms of this kind lead us inevitably to the one other official source of information, namely, the second volume of that enquiry which was prompted by the fiscal controversy. This volume (Cd. 2337) contains family budgets so arranged as apparently to disclose how weekly family consumption varies with income. From it, at any rate, we can easily work out, using the methods of our first approximation, the annual family consumption, the consequent amount of taxation, and the percentage of income paid away in taxation. Table V. gives the results of these operations. Perhaps it is advisable to repeat that the figures give for safety an estimate which is some pence too low.

(17) **RELATION TO PREVIOUS RESULT.** Our first approximation can now be corrected in the light of these figures. It seems safe to say that with family incomes of less than 40s. per week consumption is so far beneath the averages of the Statistical Abstracts that the percentage of family income taken by taxation

at 21/6	is not 2'40,	but 1'67;
" 27/-	" 1'90,	" 1'55;
" 32/-	" 1'60,	" 1'36;
" 36/6	" 1'40,	" 1'28;

At the same time, for incomes above 40s. per week the percentage is not 1'00, but 1'12.

(18) **COMMENT.** We should of course have expected to find our first approximations incorrect, since they were based on the assumption that food consumption was the

II

V.: TABLE.

FAMILY CONSUMPTION ACCORDING TO FAMILY INCOME.												
Limits of incomes included	All under 25/-		25/- to 30/-		30/- to 35/-		35/- to 40/-		40/- and over			
Number of budgets .....	261		289		416		382		596			
Average No. of children...	3.1		3.3		3.2		3.4		4.4			
Actual av. weekly income	21/4½		26/11½		31/11½		36/6½		52/0½			
COMMODITY	A—Annual family consumption in lbs.				B—Annual family taxation in pence.							
	A		B		A		B		A		B	
Tea .....	24.96	126	28.61	144	29.64	149	30.68	154	37.44	188		
Coffee .....	3.12	5	4.16	6½	3.64	5½	4.16	6½	5.72	9		
Cocoa .....	4.68	5	5.20	5½	6.76	7	7.80	8	9.36	9½		
Sugar .....	201.2	51	240.2	61	249.1	63	270.9	68	384.4	88		
Currants .....	17.16	4½	19.24	5	22.88	6	30.16	8	31.2	8		
Raisins .....	4.68	4	6.76	5½	9.36	7½	11.44	9	16.12	13		
Marmalade and jam* .....	—	3	—	5+	—	7+	—	8	—	11		
Treacle and syrup* .....	—	7	—	7+	—	5	—	7	—	8		
Total taxation—pence .....	205½		240½		251		268½		334½			
Taxation × 100/Annual In.	1.67		1.55		1.36		1.28		1.12			

\*Estimated: Board of Trade budgets give values, not quantities.

same for all classes of incomes. But it should be noted that even when the estimate based on average consumption of taxed foodstuffs per family of five given in Table II. has been corrected by the figures of actual family consumption given in Table V., the dominant characteristic of specific indirect taxation, namely that it is regressive, still remains. Our only discovery is that the regression is somewhat less than we at first supposed.

(19) EXAMINATION OF BOARD OF TRADE CLASSIFICATION. Some doubt must obviously arise in respect of the validity of these averages. While they seem valuable, and indeed strongly suggest verisimilitude, it is nevertheless impossible to accept them without scrutiny, and careful analysis does immediately detect and disclose their defects. Take for example the returns, 289 in number, from families whose income is between 25s. and 30s. per week. They are roughly classified according to districts. If now we work out in detail the taxation according to district, we get results as in Table VI. It will be noticed that the limit of deviation from the average income of 27s. per week is, alike above and below, less than 1¼%.

VI.: TABLE.

DISTRICT	NO. OF RETURNS	AVGE. DISTRICT INCOME	TAXATION, PENCE PER ANN.
North of England ... ..	61	27/4	255
Midlands ... ..	35	27/0½	232
London and Suburbs... ..	49	26/8	239
Rest of England... ..	53	27/-	235
Scotland ... ..	77	26/11½	241
Ireland ... ..	14	26/8	254

The deviations from the average income of 27s. per week are so very slight that the differences in the average amount of taxation per district per annum call for investigation. Perhaps it is proper at this point to emphasise the fact that the figures given for each district are themselves only averages and may, so far as our knowledge goes, conceal far wider limits of variation in the individual budgets whence they have been extracted. Still, let us first perform the same detailing operation on the next higher class of family budgets, where the family incomes fall between 30s. and 35s. per week. The very singular results are given in Table VII. Here again the average income of 32s. is statistically a useful and true average, while the amounts of taxation paid vary very considerably. And here, too, we must remember that the figures we are working with are themselves averages.

VII.: TABLE.

DISTRICT	NO. OF RETURNS	AVERAGE DISTRICT INCOME.	TAXATION—PENCE PER ANNUM.
North of England ... ..	64	31/9½	246
Midlands ... ..	61	32/2½	252
London and Suburbs ... ..	80	32/1½	268
Rest of England ... ..	73	31/8	251
Scotland ... ..	117	31/9½	240
Ireland ... ..	21	32/7	280

(20) CRITICISM AND CONCLUSION. Out of a comparison of Tables VI. and VII. there now emerges this very unexpected fact, that the two districts in Table VI. which show the highest average taxation, namely the North of England and Ireland with 255 and 254 pence per annum respectively, pay more (although their average incomes are as much as 5s. per week less) than four out of the six districts of Table VII., namely the North of England, the Midlands, the Rest of England, and Scotland, whose amounts respectively are 246, 252, 251, and 240 pence per annum. Nor can any other mode of representing the burden of taxation, *e.g.*, as a percentage of the annual income, obscure the truth that these two classes that we have taken, or rather had presented to us by the Board of Trade, are so inextricably interwoven as to make their separation at least artificial. The comparison of any other two contiguous classes would yield a similar result.

It must, therefore, be regretfully admitted that, interesting as are the average tables of family consumption supplied by the Board of Trade, the variation in the methods of family expenditure is too great to permit of any averages—and unfortunately the Board of Trade has not published the details on which its averages are based—giving more than the roughest of charts of the features of class expenditure, and therefore of the contributions of different classes of income to taxation. One is, in fact, inclined to say that we must after all abandon the attempt to deal with *classes* of contributors and fall back on an analysis of individual budgets. If one cannot safely work with averages, it may nevertheless be useful to present types.

(21) SOME FAMILY BUDGETS IN DETAIL. Turning, then, to individual budgets, we may examine Table VIII., in which the details of thirteen budgets are set out. They have been carefully kept, either under the writer's supervision or under that of trustworthy friends. The weight of taxation is added in pence per annum to the consumption in lbs. per annum.

VIII.: TABLE.

(A) CONSUMPTION AND (B) TAXATION OF 13 FAMILIES TAKEN AT RANDOM—INCOMES GIVEN.																												
No. of budget .....	1	2	3	4	5	6	7	8	9	10	11	12	13															
No. in family .....	3	8	3	7	7	8	4	8	7	2	5	5	5															
Family Income ...	Less than 20/- per week										20/- to 25/- per week																	
	A		B		A		B		A		B		A		B		A		B									
COMMODITY	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B								
Tea.....	3'25	17	6'5	34	9'75	50	9'75	50	13	6'7	—	—	6'5	34	13	6'7	19'5	100	13	6'7	19'5	100	26	134	26	134		
Coffee .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cocoa .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sugar.....	78	20	52	133	52	133	78	20	78	20	104	27	156	40	234	59	78	20	104	27	104	27	156	40	156	40	26	28
Currants .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Raisins & dried fruits .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jam.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condensed milk .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Treacle .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Taxation .....	37	47½	63½	70	91	33	91	126	123	131½	145	174	234															

A single glance at the table confirms the criticism which we have ventured to make above on the Board of Trade averages. Its figures—all of which come in the first class of incomes, that is from families with less than 25s. per week—show quite conclusively that

the classification of families according to income, whether one be examining their standard of comfort or their contributions to the national revenue, affords us no sound statistical basis for any conclusion save this, that no conclusion is possible. Further budgets from families in receipt of higher incomes would, if space permitted their appearance, show similarly wide divergences from any assumed average standard of comfort or of contribution.

(22) PERSONAL VIEWS. I am quite convinced, after examining many budgets from every possible point of view, that the summary appended contains as much as can be said with certainty on food taxation.

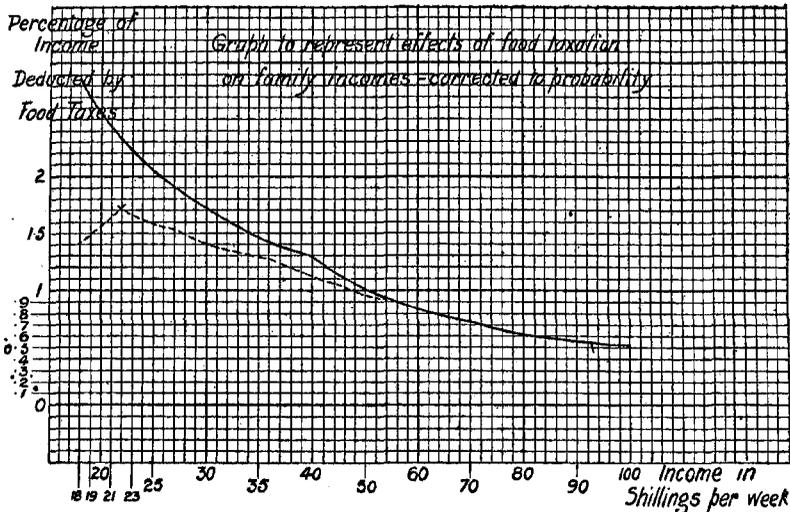
- i. It is regressive. The smaller incomes pay a disproportionately large percentage.
- ii. Assuming normal consumption, it amounts to 1'25 pence per head per week, or in the case of the average family to 6d. per week.
- iii. The higher family incomes among the working classes reach this amount; if the family be small, or the number at work large, consumption frequently exceeds the normal.
- iv. The consumption of taxed foods by middle-class families does not exceed that which obtains in many working-class families. Very frequently it is lower. The superiority of their standard of life, in so far as food is concerned, depends rather on foods that are not taxed.
- v. On the whole, the lower the family income the less the total contribution to national expenditure, but the greater the percentage of income thereby taken. In other words, regression is practically continuous and universal, though its degree admits of exaggeration.
- vi. *The lower the standard of comfort, the larger the percentage of food expenditure which is taxed.* When the cheaper jam displaces the dearer butter or margarine, as also when the cheaper condensed milk displaces the dearer cow's milk, a portion of the family income which was before untaxed automatically becomes taxed.
- vii. It is frequently true that where the contributions in food taxation are abnormally low, the contributions in respect of tobacco and alcohol are abnormally high.

(23) FOR INVESTIGATORS. It is no part of the object of this paper to urge either that "the breakfast-table should be free" or even that the working classes so-called pay too much. Sufficient to it is the statement of those facts and figures which allow no room for doubt, leaving comments of a social and political nature to be made by the reader. For his benefit, and for that of investigators generally, the diagram representing our first conclusions is repeated below, and another graph is added correcting it to what the evidence subsequently adduced suggests to be the most probable approximation. The reader must remember that it is subject to the criticism brought above against the use of averages, and does not, therefore, possess any high degree of certainty. The consumption of individual families will constantly show a deviation from the line, due to the number of children, extra-family obligations, the consumption of beer and tobacco, the rent, the amusements, the relations subsisting between husband and wife, and lastly to the mode of consumption generally.

### III. TAXATION OF ALCOHOL AND TOBACCO.

(24) The taxes on alcohol and tobacco do not admit of treatment on the lines adopted for food taxation. For reasons which in this short essay cannot be fully stated a wholly different method of representing their burden is chosen. The difficulty is not merely that the consumption of alcohol varies rather from trade to trade than from income to income, though that is largely true; nor that the taxes in respect of these articles are voluntary contributions in a sense in which the food taxes are not voluntary, though there are those who would urge that they are; it is simply the enormous differences in consumption from man to man, and from family to family, that make ordinary methods of representing taxation in this connection not merely fallacious but false. The averaged beer scores of "moderate drinkers," though many have used them, provide no basis at all for statistical treatment.

## IX. : DIAGRAM.



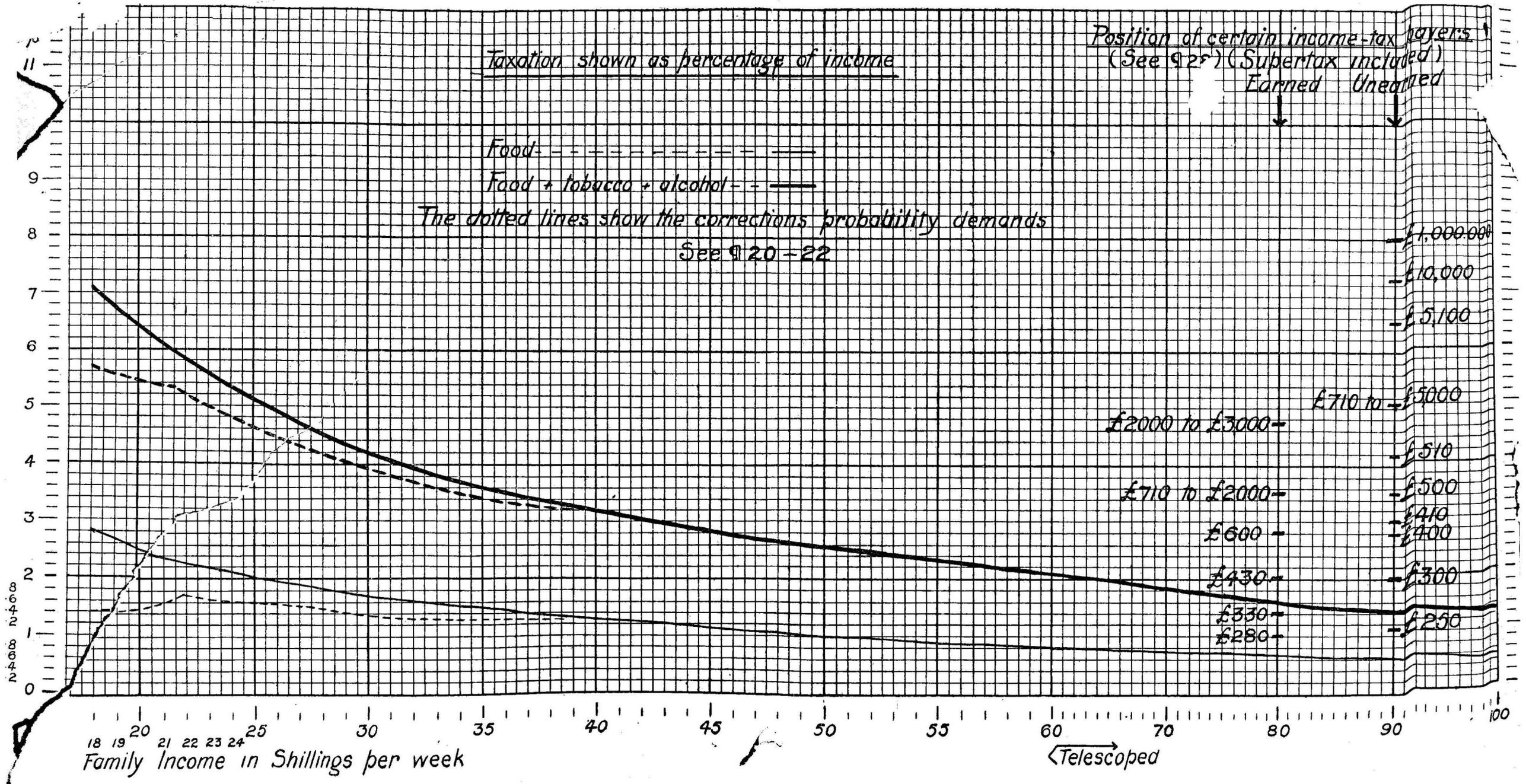
(25) COMPARATIVE REGRESSION. In the first place it may be noted that these taxes are undoubtedly regressive, both less so than say the taxes on tea and on sugar, and beer taxation itself probably less than that on tobacco. Each of them, however, does without doubt fall more heavily on the smaller incomes.

(26) METHOD AND ESTIMATE: ALCOHOL. Since it is not possible to assume or to discover any "normal" class consumption, the best procedure is to take the taxation on easily understandable modes and quantities of consumption, and show how the results may be applied to individual cases. Let us then take the *paterfamilias* who drinks each week one gallon of beer of standard strength. For the eight pints as taxed he will get nearly eleven pints as sold at the bar, since beer is usually retailed at about 75% standard strength. Vividly put, this consumption allows a pint for each full working day, that is one glass or "gill" at midday and another in the evening, twice these quantities for the Saturday and the Sunday, and nearly a pint or two glasses over.\* On this basis he will consume 52 standard gallons a year and thereby contribute about 144 pence to the national expenditure. Spirits and wine he will consume much less freely. His whisky, port, "hot claret," and so forth, are only occasional indulgences, the last two so much so that we may neglect them. Let us suppose for spirits '25 proof gallons per annum or '04 proof pints per week (= '33 bar gallons and '05 bar pints respectively), a consumption which, so far as taxation is concerned, will cost him about 48 pence per annum, and make his total taxes on alcohol 192 pence per annum.

\*If he should drink "shandy" he will get not 11 but nearly 20 pints per week without increasing his taxation.

(27) TOBACCO. Again, let our supposed father consume tobacco at the rate of 1'5 ounces per week—reduced to cigarettes this would mean 6 or 7 cigarettes per day. Here he will pay on his consumption of nearly 5lbs. per annum about £1 or 240 pence. This added to his alcohol taxation gives a total of 432 pence per annum.<sup>1</sup>

<sup>1</sup>That these figures are not intrinsically unreasonable is shown by the enormous contributions of alcohol and tobacco to the national expenditure. For every penny contributed by food taxation those two articles together contribute sixpence. But it may help if I quote here from one of many reports I have received on the subject: "My dear Mr. Kolthammer,—Below you will find the beer and tobacco budget of a friend of mine. He is a weaver by trade and may average about 24s. per week the year round. His wife works



DN. Applying these estimates in the usual way, and assuming either members of the family are abstinent or that they are counted in to produce the above consumption as a family consumption, we get the results that are given in Table X., and in Diagram XI. It was stated in paragraph 24 that it is impossible to represent the effects on income of the taxation of alcohol and tobacco, in the same way as the effects of the taxation on food. The table can, however, easily be employed to find out the effects in any case when the consumption of alcohol and tobacco is known. The investigator needs but to remember that in our typical case the consumption of beer and tobacco is such as to show the following ratio:

Taxation on alcohol : taxation on tobacco :: 4 : 5,

and that if "normal family" food consumption exists, the relationship of all three as regards taxation is—

alcohol : tobacco : food :: 4 : 5 : 6.

The ratios between the percentages of income abstracted by taxation will of course be in the same proportion.

I have ventured to indicate in Diagram XI. the position of certain income-tax payers, from the point of view of income-tax only. Their food taxation is very slight indeed—negligible in fact. Other modes in which they contribute to the national expenditure cannot here be considered. Abatements are allowed for three children, and for 5% of the income as spent on life insurance.

X. : TABLE.  
TAXATION SHOWN AS PERCENTAGE OF INCOME.

FAMILY INCOME IN SHILLINGS PER WEEK	FOOD TAXATION	FOOD + ALCOHOL + TOBACCO TAXATION	FAMILY INCOME IN SHILLINGS PER WEEK	FOOD TAXATION	FOOD + ALCOHOL + TOBACCO TAXATION
18	2'84	7'10	34	1'51	3'77
19	2'70	6'75	35	1'46	3'65
20	2'56	6'40	36	1'42	3'55
21	2'44	6'10	37	1'38	3'45
22	2'33	5'82	38	1'35	3'37
23	2'23	5'57	39	1'32	3'30
24	2'13	5'32	40	1'28	3'20
25	2'05	5'12	45	1'14	2'85
26	1'97	4'92	50	1'02	2'55
27	1'90	4'75	55	'93	2'32
28	1'83	4'58	60	'85	2'12
29	1'77	4'42	70	'73	1'82
30	1'71	4'27	80	'64	1'60
31	1'65	4'12	90	'57	1'42
32	1'60	4'00	100	'51	1'27
33	1'55	3'87			

also at the same trade and makes a similar wage. Out of this they pay 4s. each week for the care of their child, and 1s. a week for washing, this latter item being intended to relieve the wife of some of the heavier work. *The husband has the reputation of being a sober, well-conducted, hard-working man. I can vouch for this, he being a particular friend of mine, and the following figures will bear me out. They give a typical week's budget: he tells me it varies very little indeed in amount, though it may in distribution from day to day.* "Yours, etc."

BEER.		TOBACCO	
Monday	... 2 gills	Cigarettes	... 20 ... os. 6d.
Tuesday	... 2 "	Cigars	... 3 ... os. 9d.
Wednesday	... 1 "	Tobacco	... 1 oz. ... os. 5½d.
Thursday	... 5 "	Total	... 1s. 8½d.
Friday	... 6 "	Grand total	... 5s. 11½d.
Saturday	... 8 "		
Sunday	... 10 "		
	34 gills		4s. 3d.

This case of a "six-shilling" man is illuminating. He will pay on 110½ bar gallons of beer about 212 pence and on his tobacco not less than 350 pence, or 562 pence in all. Our own hypothetical figures gave a total of 432 pence. The cigars are enough to explain the difference.

#### IV. OTHER PAYMENTS.

(29) LOCAL TAXATION. Public activities do, however, deduct rather more from family incomes than our figures have so far shown, and results of very considerable significance emerge from the attempt to estimate the total amount deducted. Thus, local taxation constitutes a burden at once more heavy and, in a sense, less voluntary than imperial taxation. On the assumption that current expert opinion is correct in placing the burden of local rates mostly, if not in some cases wholly, on the shoulders of the occupiers of houses, it is possible to indicate certain necessary additions to our former conclusions. Only a small minority of working-class families in urban districts pays less than 4% of their income in local rates—a minority whose standard of comfort is relatively high, while it is easy enough to find in our towns cases where even more than 6% is paid. Nor can there be much doubt that we must add to these percentages a part of the shopkeepers' rates, for part is certainly thrown forward on to consumers generally.

(30) EXAMPLES. An example, such as can readily be paralleled, may be adduced in confirmation of these statements. A certain row of houses in an urban area returns to its owner a gross 10%. They are each rented at £13 per annum or 5s. per week. They are uncomponded, and their rateable value is 80% of the rental, or £10 8s. The tenants pay 26s. per quarter or 2s. per week, the sizes of the families in them vary from 3 to 10 persons, and the incomes from 28s. to £4 per week—the size of the family mostly varying inversely as income. In these cases, therefore, local taxation deducts from 25% to 7·14% of the family income, the former from £4, the latter from 28s. per week. Rates in this area are high, 10s. in the £, and consequently these figures are slightly above the urban average for the country. At the same time it must be admitted that the family incomes are also probably higher than the average. There is indeed good reason for believing that the working-class family does not contribute much, if anything, less to local taxation than the middle-class family, while it contributes considerably more than the families of the wealthier classes. That is to say, the facts of local rating are certainly not such as to weight the general balance of taxation in favour of the poorer classes.

(31) THE INSURANCE ACT. There is yet another compulsory deduction from income, for the contributions of workmen under the Insurance Act, though not taxes in the strict sense of the term, are inevitable charges for State services. Certainly the services for which they are payments are more obviously and immediately benefits than either Dreadnoughts or Police or Sewers, but while it is necessary to remember that in the long run they act as preservatives of income, we cannot for that reason omit to consider their initial burden.

A few examples will show the addition which insurance premiums make to the percentages deducted from the incomes of working-class families under the headings of taxation given above. According to the table on page 15 [*i.e.*, Table X], a family with an income of 18s. a week pays in taxation on food, tobacco and alcohol 7·10 per cent. of its income; a family with 21s. pays 6·10 per cent.; a family with 25s. pays 5·12 per cent.; a family with 30s. pays 4·27; a family with 35s. pays 3·65 per cent. When an additional 4d. is deducted for sickness insurance, these families pay respectively the following percentages: 9·10 per cent., 7·82 per cent., 6·56 per cent., 5·47 per cent., 4·68 per cent. If the head of the household is engaged in one of the industries where insurance against unemployment is compulsory, the percentages deducted from their incomes are further increased by the following amounts: 1·15, 0·99, 0·83, 0·69, 0·59. When, therefore, a family includes a member who is insured against both sickness and unemployment, the percentages taken from its income by the State both in the form of taxation and in the form of compulsory insurance premiums amount, if the family income is 18s., to 10·25 per cent., if the family income is 21s. to 8·81 per cent., if it is 25s. to 7·39 per cent., if it 30s. to 6·16 per cent., if it is 35s. to 5·27 per cent.