

## OUR CANALS.

(From our Correspondent)

During the last few years much interest has been evoked by chambers of commerce and other associated bodies in the canals of this country, as compared with those on the Continent, and many attempts have been made by Parliament and otherwise to obtain authentic and complete data relating to them, among which may be noted Mr. Cobden's Parliamentary Map of 1852, the Joint Parliamentary Committee of 1872, Mr. Salt's Committee of 1883, and a special conference by the Society of Arts in 1888; but nothing of much practical value appears to have resulted until after the passing of the Railway and Canal Traffic Act, 1888, and the subsequent issue by the Board of Trade of Blue-book C 6,083, 1890, prior to which very few people could have had any very definite idea of the mileage, traffic, or revenues, or of the capital sunk in these silent highways.

From the Blue-book we find that in the United Kingdom there are 3,813 miles of navigable inland water, of which 2,609 miles are in the hands of no fewer than 71 separate independent companies or incorporated bodies and 1,204 miles are under the control of 15 separate railway boards. It also appears that on these waterways an aggregate traffic of 36,301,120 tons was passed in the year 1888, yielding a total revenue of £2,041,476.

The whole mileage, traffic, and revenue is divided among the three kingdoms as follows :—

<b>MILEAGE (EXCLUDING FRACTIONS).</b>			
	<b>Indepen- dent.</b>	<b>Railway- owned.</b>	<b>Total.</b>
England and Wales .. ..	2,026	1,024	3,050
Ireland .. .. .	513	96	609
Scotland .. .. .	70	84	154
<b>Gross .. .. .</b>	<b>2,609</b>	<b>1,204</b>	<b>3,813</b>
<b>TRAFFIC (TONS).</b>			
	<b>Indepen- dent.</b>	<b>Railway- owned.</b>	<b>Total.</b>
England and Wales .. ..	27,715,875	6,609,304	34,325,179
Ireland .. .. .	487,194	30,386	519,580
Scotland .. .. .	69,744	1,386,617	1,456,361
<b>Gross .. .. .</b>	<b>28,274,813</b>	<b>8,026,307</b>	<b>36,301,120</b>
<b>REVENUE (£).</b>			
	<b>Indepen- dent.</b>	<b>Railway- owned.</b>	<b>Total.</b>
England and Wales .. ..	1,439,343	437,080	1,876,423
Ireland .. .. .	89,369	6,495	95,864
Scotland .. .. .	12,011	57,178	69,189
<b>Gross .. .. .</b>	<b>1,540,723</b>	<b>500,753</b>	<b>2,041,476</b>

As regards the capital expenditure, the Board of Trade do not give the figures for the railway-owned canals; but the total amounts given for the independent canals, divided by the mileage, allows an average per mile for England and Wales, £9,027; Ireland, £4,037; and Scotland, £17,015, after a deduction in the case of the Manchester Ship Canal of the difference between the cost of the Bridgewater and subsidiary canals and the expenditure to 1888 on the then uncompleted Ship Canal itself. Applying these averages to the total mileages we arrive at the following approximation :—

## CAPITAL EXPENDITURE.

	Indepen- dent.	Railway- owned.	Total.
England and Wales .. ..	18,288,702	9,243,648	27,532,350
Ireland .. .. .	2,070,981	387,552	2,458,533
Scotland .. .. .	1,254,050	1,504,860	2,758,910
Gross .. .. .	21,613,733	11,136,060	32,749,793

The earliest inland navigations were in the main rivers, having direct access to the seaports and serving locally only such districts as were within the respective river basins. Powers to improve those rivers by various primitive modes were granted by Parliament to conservators, undertakers, and trustees, as they were variously styled, with permission to levy tolls as their remuneration, and, as the improvements effected were of moderate cost in relation to the trade induced thereby, the revenues grow apace, and, as a rule, the body authorised has maintained a steady course of prosperity, not only paying handsome rates of interest continuously on the capital originally sunk, but also spending large sums out of revenue in further improvements from time to time almost down to the present day.

Towards the close of the 18th century the need of through lines of communication—more efficient than the then existing roads—between the ports of London, Liverpool, Bristol, and Hull and the manufacturing districts of England must have been keenly felt. It is fair to assume that Brindley's success in artificial canal engineering gave the required impetus to meet this want, as, in spite of the difficulties experienced in raising capital, during a period when the country was involved in exhausting wars most of the links which now constitute the English system of canals were projected and carried out. It is, however, a public misfortune that for want of some general controlling regulations by Parliament, as in the case of railways, the construction of the various links was determined rather by local ideas than with any regard to national needs, the consequence being that on almost every through route there are changes of gauge, either of locks or sectional area of waterway, which seriously hamper through traffic and necessitate either transshipment en route or the employment of boats for through transit only fitted to carry loads which are barely remunerative.

Notwithstanding these drawbacks, the canal system, as a whole, must have been an enormous boon to the trading community before the commencement of the railway era; even up to the time when railways began to amalgamate into large systems the canals held their own fairly well and yielded to the shareholders a fair return on their capital. Prior to this period the general canal carrying trade was in the hands of private carriers, several of whom had a considerable number of boats and extensive agencies and organizations all over the country, but the increasing power of the amalgamated railways as against the canals with their structural difficulties was soon demonstrated and the carriers gradually transferred their agencies to the railways, with the result that much of the through trade was permanently lost to the canals.

The English canals are connected with each other to such an extent as to form physical through routes between the four great ports first mentioned and the principal trade centres, and it is in this aspect as a complete system competitive with railways that the writer proposes to review them from a shareholder's standpoint. As above shown, the total mileage is 3,660, of which 2,026 miles are owned by 60 independent companies and 1,024 miles are in the hands of 12 railway companies. As regards these last mentioned, it should be stated that either as a condition of amalgamation with adjoining lines or otherwise the acquisition by the railways of the various canals forming this large proportion of the entire system received statutory sanction, and the responsibility, therefore, rests distinctly with Parliament.

The passing of the Act of 1815, which authorised canal companies to become carriers over their own and adjoining navigations, and the Act of 1847, which empowered them to raise special capital for the purpose, gave an opportunity to regain some of the lost ground ; and these Acts were adopted by a few companies in the North, with the result that, in addition to the special trade still conducted by private carriers, a large general traffic has been maintained in competition with railways.

The canal companies who act as carriers are the Aire and Calder, the Leeds and Liverpool, the Bridgewater, the Shropshire Union, and, lately the Rochdale. All these, with the exception of the Shropshire Union, are engaged exclusively in the traffic between the ports of Liverpool, Hull, and Goole and the intervening manufacturing districts of Lancashire and the West Riding, while the Shropshire Union operates on a large scale between Liverpool and the Potteries and the Black Country districts.

On all the canal routes worked over by these companies the “break of gauge” difficulty arises in a greater or less degree and obviously handicaps the trade.

On the non-carrying companies' canals the trade is meagre in comparison with the physical capacity to pass it, except where, as in the case of the Birmingham Canal, there is access at many points to a large mineral traffic; but it is doubtful whether any additional general trade could be induced unless the canals were improved and in the case of through routes made of uniform dimensions.

The canals differ from each other in character and circumstances, even when directly connected, in a much greater degree than railways, as will appear from the following epitome:-

1. Improved or canalised rivers. Types—Aire and Calder, Weaver.
2. Canals passing through a level country with few locks and provided with water from rivers or connected canals, part of a through route, Types—Bridgewater, Lee, Leicester.
3. Canals forming long self-contained systems. Types—Leeds and Liverpool, Grand Junction.
4. Canals with a large local trade forming a short section of a through route of specially expensive construction. Type—Birmingham.
5. Canals of a short length having to provide water by pumping. Types—Regent's, Halifax.
6. Canals with small local trade forming part of a through route passing through a hilly country with numerous locks and providing water by lockage for traffic on connected canals. Types—Rochdale, Huddersfield.

It will be readily seen that the relative cost of construction and of maintenance of these widely different undertakings must vary, and that revenue powers which would be fair and reasonable for one could not be so for all.

There is one feature in respect to the cost of construction which should be noticed, as it applies to many companies--that is, the large sums provided out of revenue in lieu of subscribed capital. The explanation is that at the time the canals were being made it was found impossible to raise sufficient fixed capital and recourse was had to temporary loans, to liquidate which the net revenue was drawn on for many years, while the shareholders had to be content, with nominal dividends, and in some instances no dividend at all. These additions to capital amount in the aggregate to £4,839,572, and is included in the general capital statement above.

The Act of 1888 prescribed (*inter alia*) that the canal companies should submit to the Board of Trade ‘a revised classification of merchandise and a revised schedule of maximum charges applicable thereto,' and the Board of Trade required an epitome of each company's existing maxima to be furnished at the same time. When these documents were made public it was

seen that there were great divergences in the powers originally granted and in the revised powers asked for by the respective companies, and the Board of Trade decided to hold a public inquiry in relation to six typical companies—the Aire and Calder, the Leeds and Liverpool, the Grand Junction, the Birmingham, the Warwick and Birmingham, and the Regent's Companies being selected.

The inquiry was conducted by Lord Balfour of Burleigh and Mr. (now Sir) Courtenay Boyle, who took a mass of evidence, which is embodied in a Blue-book. This evidence was given both on behalf of the companies and the opposing traders' associations, and the varying circumstances of these canals were clearly indicated. The General Election of 1892 intervened and it was some months before the Board of Trade decision was known; but the Board eventually proposed to the six selected companies a new schedule, uniform in terms and conditions, with a scale of charges much below those in the deposited schedules. This new schedule was not accepted by any of the companies, and, after being submitted to Parliament, it was referred to a joint committee of Lords and Commons, under the chairmanship of Lord Northbrook.

This committee also took evidence similar in character to what had previously been given, but, in addition to the traders' organizations, Sir Courtenay Boyle attended in support of the Board of Trade schedule, and in the result the Aire and Calder, Leeds and Liverpool, Grand Junction and Warwick Companies were awarded schedules of maximum charging powers with certain bonus mileage provisions which Parliament subsequently enacted, but, although these are far less onerous than the original proposals of the Board of Trade, they will probably involve serious reductions of present revenue and discourage further expenditure of capital. The Regent's Canal case was for some reason dropped, and the Board of Trade proposals as affecting the Birmingham Canal were shown to be so drastic that Lord Northbrook's committee rejected them unanimously.

The preliminary inquiry on behalf of the Board of Trade into the revised schedules of the other canal companies has been referred to the Hon. T. H. W. Pelham and is still unfinished.

At the inquiries which resulted as above, the mode in which the traders' opposition to the various schedules was organized and conducted and the character of the evidence tendered on their behalf are noteworthy. There were two or three advocates who appeared on behalf of specific associations consisting of municipal corporations, chambers of commerce, and similar bodies, who, as such, have no direct interest in the questions at issue. The evidence in opposition was to a large extent given by "bye-traders" (canal carriers), and the logical drift of their contention was that, without regard to circumstances or the interests of shareholders, the canal tolls should be reduced all round to the lowest uniform level for their benefit. But it should be pointed out that the "bye-trader" of the present day as he appeared at the inquiries is a very different man to his analogue of 50 years ago. He is usually the owner or hirer of a few boats employed in carrying coal and various kinds of raw material, worked under such conditions as to crews and their earnings as no responsible company would be permitted to adopt. He is under no obligation, statutory or otherwise, as to charges or equality of treatment to his customers, and any concessions which might be extorted from the companies would not necessarily go to the traders, as the "bye-trader" pays the canal tolls, but charges to the traders an inclusive conveyance rate. Besides this, the "bye-trader" picks only such traffic as suits his convenience or plant, and leaves the rest, such as part loads, odd lots, etc., to the canal company (if carriers), or else to find its way to its destination by some other means. There are, of course, exceptions to this type of "bye-trader", particularly in Lancashire, where also many traders carry their own traffic, but they did not appear against the companies as the witnesses on behalf of the opposing associations.

It cannot be said that the "bye-trader" is an unnecessary part of canal comity, as the non-carrying companies live through him, and where the canal company does carry he, as a rule, confines himself to traffic which they do not touch. It may be stated generally that carrying canal companies confine themselves to traffic of C and higher classes, while the "bye-trader" does the trade in A and B classes. The main exception is the Aire and Calder, which, from its favourable physical position, conducts a large coal traffic for export in addition to the higher classes of merchandise. But it is highly probable that if we could revert to the old order of things, with private carriers properly laid out for dealing with traffic of all kinds that admit of canal transit, the carrying canal companies would willingly give up carrying and live on tolls as formerly.

The business of "bye-traders" is, as a rule, costly to those companies who provide the water in consequence of the large proportion of boats worked empty in one direction, which by concentration of the carrying interests might be materially reduced by back loading. The "bye-traders" do not benefit by working empty boats, nor do any of the canal companies, per se; the practical effect, however, as between two adjoining canals, is that one is by lockage depleted of water, which is a source of serious expense by whatever means provided; but, instead of being like the product of capital sunk in an improvement of which the owner gets the sole benefit, the water passes with the boat, whether loaded or empty, on to and benefits the other canal, which bears no share of the expense. It can hardly be doubted that in the near future the needs of growing populations, especially in the manufacturing districts, will necessitate legislative interference with the present water rights of some canal companies, when questions will arise too intricate to deal with here. (There can be no material economy in water consumption for canal purposes under the existing conditions of working.)

Much has been said in a general way about the superior canal systems on the continent, and it is tacitly implied that the canals of this country should be improved up to a somewhat similar standard: but who is to do this? The Continental canals are almost exclusively the creation of the State and are administered as national systems for the public benefit, while our canals are entirely the result of private enterprise: and, although theoretically the owning companies might strengthen their position by amalgamations, as the railways did, cogent reasons why they have not done so were stated before Mr. Salt's committee, and the inducements to shareholders to subscribe further capital are less now than at that time.

The railway-owned links form one obstacle, as it is too much to expect that the present owners will voluntarily co-operate in any movement which would facilitate a transfer of traffic from their own lines. Another obstacle is the uncertainty of the treatment which the remaining canals of various types will receive from Parliament through the revised schedules, it being felt that those already dealt with were treated harshly, in consequence of the irritation engendered by the manner in which the railway companies translated their revised powers.

There are many other points which deserve attention, but the most salient ones have been mentioned, and the writer would reiterate his previous proposition, that the defects and difficulties which have paralysed the English canals as a national system are due to Parliamentary action or inaction, and Parliament alone has the power to remedy this, in a manner fair to the present owners on the one hand and the public on the other.

There appears to be only one course by which the interests: of the public, the traders, 'bye-traders' and shareholders alike can be secured—namely, that instead of partially or wholly confiscating the interests of canal shareholders through the revised schedules, Parliament should purchase the whole of the canals, paying their fair value, and then improve the principal through routes to a uniform standard equal to the best link in each. This would obviate the equitable need under present circumstances of different scales of toll

supplemented by bonus mileage, and would also enable one uniform scale of tolls, based on actual mileage, to be applied to the whole system without hardship to anybody.

Such a system could be administered by a Special Canal Commission more efficiently and economically than by so many local boards, and the public use of the canal's would have freer scope for development than is now practicable, as a competitive mode of transit for a large proportion of the merchandise traffic of the country. In addition to these advantages the vitally important question of how best to distribute the national supplies of potable water for the benefit of our future increase of population would be very much simplified.

The capital required for such a purchase would probably not exceed that shown above as capital expenditure, and the cost of improvements to uniform gauge on through routes would be a moderate addition which might be funded in a form to attract investors as in the case of Indian and colonial railways.

## OUR CANALS

### TO THE EDITOR OF THE TIMES

Sir,—Will you allow me space for a few words in reference to the subject raised in your interesting article of this day's date on 'Our Canals'? I must only attempt to deal with one point in it, and, though it would be interesting to extract from the Parliamentary representatives of the Board of Trade the reason why that Department considers a proposal to confiscate 81 per cent. of the total net revenue of one canal undertaking, the Birmingham Canal Navigation, namely—the figures have been officially admitted to be correct—is likely to encourage other persons to invest in canal improvements which are said to be urgently necessary, I will refrain, out of regard for your space, from all discussion of that subject here. But on one sentence of your Correspondent's article I should like to be permitted to comment. "Parliament," he says, "should purchase the whole of the canals, paying their fair value, and then improve the principal through routes to a uniform standard equal to the best link in each." What I should like to suggest is that, before spending one penny of the public money on any such purchase, the Government should appoint a Commission to investigate the recent history of canals in other countries. It need be but a small Commission, consisting of one financial expert—presumably a Treasury official—one engineer, one person of experience in traffic questions, and, perhaps, one representative of commercial interests. I venture to believe and to assert, with full knowledge that what I say is diametrically opposed to the prevailing opinion in this country, that such a Commission would, in all probability, report that at the present day any money spent on canals, beyond that required for ordinary current repairs of existing works, is simply money wasted. Of course, in speaking of canals, I mean neither river navigations artificially improved, nor yet, in all cases, ship canals, but simply barge canals of the ordinary type. Let me give in briefest possible outline the grounds for this assertion. Railways must exist. For passenger traffic and for goods traffic, either in perishable merchandise or for articles sent in retail quantities—and the proportion of the latter to the whole increases year by year—canals are out of the question. That being so, railways can afford to carry the wholesale traffic in articles of small value at rates lower than the canals, which have to depend on this traffic for their entire revenue, can afford to take. This is my proposition. Now for the proof of it. English experience does not, I admit, go far to prove it. We are here in the presence of so artificial a state of things that it is difficult to disentangle the effects produced by economic causes from those due to the outside interference of legislation. If one points to the indubitable fact that the railways have beaten the canals out of the field, the answer is that they have beaten them by an unfair competition, and strangled them by an astute occupation of the strategic points on the canals themselves. One indisputable fact, however, remains. The railway Companies are believed to understand their own business of earning a dividend. Now certain railway companies have in their own hands

entire routes of through navigation. The North-Western, for example, controls a route right away from Birmingham and south Staffordshire to the Mersey and Liverpool ; the Great Western a similar, though less important, route from London to the Avon and Bristol Channel. If these two companies deliberately direct the trifle which they carry between Liverpool and Birmingham and London and Bristol respectively on to the railway instead of the waterway—and the common charge against them is that they do this—the inference is obvious either they do not understand their own business, or they can carry the traffic more profitably by railway than by canal.