VIII.—THE FISH SUPPLY OF LONDON.

[From the LONDON QUARTERLY REVIEW.*]

1. *Report of Spencer Walpole, esq., Inspector of Fisheries to the Home Office, on the destruction of fish at Billingsgate, in consequence of the alleged inadequate accommodations at Billingsgate Market. (Ordered by House of Commons to be printed July* 20, 1881.)
2. *Report to the Common Council from the Fish Supply Committee appointed by the Corporation of the City of London. (October* 31, 1881.)
3. *Minutes of evidence taken before Special Committees of the Lords and Commons upon the London Riverside Fish Market Bill. (Session of* 1882.)

Nearly thirty years have passed since the publication in our pages of an article which produced no ordinary impression at the time of its appearance. In that article, having for its subject "The commissariat of London," we ask our readers to imagine that the principal meal of the day was proceeding in a well-to-do metropolitan home, and we endeavored to trace to their sources the various edibles consecutively put upon the table—the fish to its ocean-bed; the flocks and herds to their downs and pastures; the wild animal to its lair; the game to its covert; the fruit to its orchard; the bread to its parent cornfield—in order to point out how they are fattened, netted, trapped, captured, bagged, gathered, harvested, and conveyed to their ultimate destination, "the great red lane of London humanity."

It was natural under these circumstances that we should begin with fish. Although we devoted no more than nine pages to chronicling the operations then carried on in "Mr. Bunning's new market at Billingsgate," it could hardly have escaped the notice of an intelligent reader that "the harvest of the sea," being, as Mr. Spencer Walpole and Professor Huxley assure us, "practically inexhaustible," could not be thoroughly described, or, indeed, be more than glanced at within so brief a compass. We told our readers what fish are ordinarily brought to Billingsgate at that time; but of the fish which, were it not for the limited area and inaccessibility of London's only market, might be brought there, we said nothing. The total supply of fish sent annually to Billingsgate about the year 1853, as given in Mr. Horace Mayhew's "London Labor and the London Poor," seemed to us so enormous, that we submitted the table to an undeniable authority, who assured us that it was no over-statement. What would he now have said if

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told that the volume of fish sent to Billingsgate was nearly three times larger in 1880 than in 1853; that within the last six years it has increased from 95,000 to 130,000 tons per annum, and that this latter figure means a supply of 400 tons of fish for every working day, being, according to Mr. Edward Birkbeck, M. P.,, equivalent to a drove of 1,000 fat oxen entering London upon every one of 313 days in each current year?

Surprising as this statement may appear to many, it is nevertheless beyond a peradventure that of the cheaper and coarser kinds of fish which would enter directly into the consumption of the poorer classes an absolutely illimitable supply might be poured into the metropolis by river if a suitable market, open at all hours and accessible at all states of the tide, were available to receive it. Before showing what sort of fish market it is absolutely necessary that London should have, we propose to reveal what, at this moment, Billingsgate is. The materials for describing it lie close at hand. They may be gathered in abundance from Mr. Spencer Walpole's report to the home office; from that of the fish committee appointed by the corporation of the city of London, to which Billingsgate belongs; and, *passim*, from the evidence given before the two special committees of the Lords and Commons, which sat last session, to consider the "London Riverside fish market bill." Better, however, than any description would be the practical experience gained by a Londoner who had sufficient energy and curiosity to pay Billingsgate a visit between the hours of 5 and 9 upon a Friday morning, the best day in the week for seeing it to advantage. There is an Eastern saying, to the effect that the distance between the ear and the eye is very small, but the difference between hearing and seeing very great. Reading is but another form of hearing and to those who care to understand what the Billingsgate monopoly means, we would recommend a visit to the famous market upon the first morning of a week-day that may suit their convenience.

Billingsgate market (concerning the antiquity of which there is a difference of opinion between those who hold, with Mr. Walter Thornbury, that it owes its origin to Belin, a king of the native Britons, who flourished 400 years B. C., and others who maintain, with Stow, that a man called Billing, or Beling, owned a wharf upon the same spot, presumably in Queen Elizabeth's reign) is now and has been the property of the city of London for so long a time that it is not easy to calculate the amount of revenue already brought in by it. It has a frontage to the river of 200 feet, and a superficial area of 40,000 square feet, which area affords sites to seventeen shops and two large public houses, although, since the "Riverside fish market bill" came before Parliament, the site of one of these public houses has been voluntarily thrown into the market.

The interior of this metropolitan emporium of fish, being obviously far too narrow for the business transacted there, is divided into spaces or forms placed in such close contiguity to each other that the customers

purchasing at one form interfere with those who would fain approach its neighbor. The price charged for the forms is excessively high, being at the rate of 9*d.* a square foot per week for each. Billingsgate is situated above that portion of the river call the Upper Pool, which carries more floating traffic than any other reach of water approaching it in size upon the face of the globe, so that the dangers of navigation to which cutters and steamers approaching the market by night are exposed exceed description. The width of the portion of the river opposite to Billingsgate left open for navigation does not exceed 200 feet. In front of the market, on the water side, there is a large floating pontoon, but the steamers are not allowed to come alongside it in order to unload, being compelled to lie off at a distance of nearly 100 feet from the market quay, and to land their fish along planks thrown out from the steamer to a barge, and from this barge to the floating pontoon. Every pound of fish brought by steamer and landed from the river at Billingsgate is carried along these planks upon men's heads. Only two roads, one from and one to the steamers, are permitted to exist, and as the men have no choice but to follow each other it is evidently impossible to land a large quantity of fish before the market closes at nine in the morning. The result is that fresh fish is often thrown away, because it will not keep until 5 o'clock upon the following morning. This being the plight to which fish-carrying steamers are reduced, the trials and difficulties awaiting sailing cutters entitle them to still greater commiseration. Being sharp-bottomed vessels they have to lie out in the stream, and to land their fish, at considerable expense, in barges. There were once some piles in the river to which the cutters could make fast, but the market authorities drew them. It ought, in addition, to be mentioned that the work of landing fish along the planks which we have just described is dangerous to the men engaged in it, and all the more so because during half the year it is done in the dark. Accidents happen frequently, and occasionally there is a loss of life. The unnecessary expense entailed in this manner upon those who consign fish to Billingsgate may be inferred from the fact which came out in evidence that the largest firm in the trade had in 1880 to pay £4,321 9*s.* 4*d.*, and in 1881, £4,854, 8*s.* 7*d.* for landing their cargoes, an outlay which, had it been possible for their steamers to moor at the market quay, would have been entirely avoided, and which, of course, came ultimately out of the pockets of the consumers.

The approach to Billingsgate market from the land side is along Lower Thames street, a thoroughfare which is from twenty-eight to thirty feet wide, and along which not more than two vans can pass abreast. It follows, therefore, that only two streams of traffic can flow along it at the same time, and thus, if a van is being unpacked at the market, one of the two streams is temporarily blocked. If an accident of the most trivial kind should occur the whole of the traffic is brought to a stand still. Six vans, and no more than six, can unload side by side at

the same time. The market opens at 5 o'clock a. m., before which hour no fish is allowed to be sold. As there are no vacant spaces or "lay-byes," for carts, for costermonger's barrows, and for vans, the streets adjoining the market are completely blocked as the hour of 5 a. m. approaches. The scene is of a nature to fill the spectator who witnesses it for the first time with wonder that, in the largest and most civilized capital upon the face of the globe, such a disgraceful anachronism should have been tolerated for so a long a time. Every lane and street leading to Lower Thames street is choked with costermonger's barrows and with fishmonger's carts, which extend as far as Cannon Street Arch, King William street, Monument Yard, East-cheap, and Tower Hill. The market, as we have already laid, closes at 9 a. m. When the clock strikes nine the police interfere and clear all the closely-packed vehicles, sometimes amounting to nearly four thousand in number, out of the city, in order to make way for the ordinary day traffic of the streets.

The market being open for four hours only, it follows, as a matter of course, that there are many customers who cannot complete their purchases before their barrows and vehicles are driven away. The nearest points to which they can retire are Tower Hill, Tooley street, or some other convenient spot outside the city bounds, where they wait until the fish is brought to them upon the heads of porters who charge heavy fees, and waste, into the bargin, no small amount of precious time.

So far as costermongers and fishmongers are concerned, the Billingsgate trade ceases at 9 a. m. After that hour the reign of the middleman or "bummaree" commences. It is of little moment to inquire how old this word may be, or whether, as suggested by Mr. Walter Thornbury, it is of Dutch origin, but at least it is certain that bummarees were known to Robert Burns's friend, the antiquarian and wag, Captain Grose. We find in Jonathan Bee's Lexicon Balatronicum, or Slang Dictionary, published in 1823, that "bummaree" is defined as "the man who at Billingsgate takes the place of the salesman, and generally after 8 o'clock a. m. buys the last lot. Derived partly from mare, the sea, to which most of them have been addicted." Writing in 1853, Mr. Mayhes says: "The market opens at 4 a. m., but for the first two hours it is attended solely by the regular fishmongers and by bummarees. As soon as these are gone the costers' sale begins. Many of the costers who deal usually in vegetables buy a little fish, especially if it is cheap, on the Friday, which is the fast day of the Irish; not to mention that the wives of mechanics run short of money at the end of the week and are compelled to eke out their dinners with fish." Since Mr. Mayhew wrote these words there has been a slight change in the conduct of the market. At present the bummaree is the first to reach and the last to leave the market. He is still of great use, but not so necessary as in 1853. At that time fish were sold in large lots, which the bummaree, as a member of the Billingsgate ring, bought, and,

having broken them up into smaller lots, sold to little buyers. Now, however, the large factors sell by auction, offering only one package or box containing at most 1 cwt. of fish at a time. This lot fetches from 1*s.* up to £7., according to the description and quality of fish contained in it. Thus the fishmonger and coster have a fair chance of bidding against what is called "the trade," but it is the bummaree's province to sort and divide the contents of each box into fish of different sizes for the convenience of the retailer. After 9 a. m. the auctioneers are obliged to sell or throw away the fish still left on hand, and the bummarees, acting in concert, have it in their power to fix the price at which it is knocked down. The result is that many lots are "for a song," and that occasionally large quantities are thrown away, which, if retail fishmongers and costermongers could make their way to the market at any hour of the day, would infallibly be sold at fair prices, instead of being sacrified or wasted as is now the case.

In his interesting evidence before the Lords committee, Mr. Spencer Walpole defined the position and occupation of the bummaree as follows:

"The ordinary course of business is for the wholesale salesman to sell fish to the retailer; but in Billingsgate the bummaree steps in between the two men. He buys the fish after market hours from the wholesale salesman, and takes the chance of selling it in the course of the day at a profit to the retailers. Therefore, as I understand the matter, he occupies very much the same position as the man who used to be called the 'forestaller' or 'regrater' in the corn market at the beginning of the century."

Far be it from us to rail against the bummaree. As the matter now stands he fulfills very useful functions, but it cannot be denied that his very existence is due to the deficiency and inadequacy of the market in which he conducts his operations. When a new wholesale and retail emporium has been established upon the river side we trust that the bummaree may emulate the example of that sagacious guard to the Edinburgh mail who got himself converted into a stroker, and thus found a new vocation to engage his attention. At present the bummaree stands between the costermongers, who represent the poor of London, and the fish for which they are clamoring. Billingsgate has bred and nurtured him, and with the Billingsgate monopoly it is to be hoped that he too will be improved off the face of the earth.

Two efforts, according to Mr. Walpole, have been made to divert the fish-trade of the metropolis from Billingsgate. In the first place a market was established at Hungerford Stairs. Being too far up the river and too remote from the East end it had but a brief span of existence. When we mention that a line drawn north and south across the center of London Bridge leaves a population of about one million six hundred thousand souls who live below the bridge, and about two million four hundred thousand souls who live above it, it will be seen

at a glance that Hungerford Stairs are not easily accessible to costermongers engaged in supplying the dense masses of poor people who dwell at the the East end. The second attempt to supplement Billingsgate was due to the generosity of Lady Burdett Coutts, who caused a superb building to be constructed in East London, and gave it the name of Columbia Fish Market. It had a still shorter lease of life than its predecessor at Hungerford, the consequence being that the ancient tyrant flourished with greater vigor than ever. As time advanced the inconveniences of Billingsgate, always considerable, were enhanced by the increasing magnitude of the trade and by the altered conditions under which it was conducted. The railway soon began to supersede the river, and fish, instead of coming to London by water, found its road there in fast trains. It was bad enough for smacks, cutters, and steamers to thread their tortuous way to the metropolitan fish market along a river which is always choked with traffic, and through the mazes and intricacies of the "Upper Pool;" yet, while the market could be reached somehow or other by water, it had become almost unapproachable by land, and it was by land that two-thirds of the fish supply of London now came to Billingsgate.

The following table of the quantity of fish delivered at Billingsgate market, or its immediate vicinity, between the years 1875 and 1880 will show the proportions of railway-borne to water-borne fish, and we shall have something to say presently as to the comparative cost of the two modes of carriage:

	1875.	1876.	1877.	1878.	1879.	1880.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Delivered by railway	71,367	73,919	82,771	94,566	92,474	87,884
Landed at wharves	1,473	1,259	1,698	4,003	4,338	5,487
Water-carriage fish landed at the market	22,109	24,247	22,799	27,300	30,080	37,258
Total	94,949	99,425	107,168	126,769	126,892	130,629

How bad the land approaches to Billingsgate have always been we have already shown, but their badness was of comparatively slight importance so long as the bulk of the fish was brought thither by water. When, however, it became necessary to deal each year with some 90,000 tons of railway-borne fish, and to deliver them at Billingsgate through choked streets and narrow lanes which would disgrace a town of 50,000 inhabitants, the difficulties were so augmented that fish vans sometimes took eight hours to get from the Great Eastern or Great Northern Railway terminus to the market where they had to unload. Each succeeding year the block increased; and, moreover, it was still further aggravated by the development of the trade in dried and fresh fruits. The fruit salesmen, says Mr. Walpole, like the fish salesmen, naturally congregated at the river side. The fruit arriving in the docks were landed and carried through Thames street to Pudding Lane, where most of the

fruit salesmen took premises; and the unfortunate street, which was altogether too small for the fish trade alone, was required to accommodate the fruit trade also.

It must not be supposed that the city fathers were blind to the growing inconveniences of their solitary fish market. Without going back further than twenty years we may notice that in 1862 Mr. Horace Jones, the city architect, suggested the only practicable scheme for making Billingsgate more accessible by land that has yet been laid before the common council. At an estimated cost of £88,000 he proposed to construct a new street from the corner of East-cheap and Fish Street Hill to Thames street. The common council approved, but allowed the proposition to lie on the table; and when, twelve years later, the improvement committee of the city of London sought to give effect to the city architect's plan it was found that in the interval between 1862 and 1874 the estimated cost had risen from £88,000 to £525,000.

Time went on, and matters at Billingsgate proceeded from bad to worse. At length, in 1878, Colonel Fraser, the chief commissioner of city police, reported to court of common council that, in the phrase so much dreaded by Lord Melbourne, "something must be done." Colonel Fraser protested emphatically that "the commerce had far outgrown the capacity of the streets for carrying it;" adding that "an overgrown business is carried on in thoroughfares or rather in lanes not wide enough to admit more than two lines of traffic," the consequence being "that the stoppage of one vehicle for any purpose brings the rest to a standstill." The only effect produced by his energetic remonstrance was that Monument Yard was paved as a street, so that many of the fruit vans and some of the fish vans were able to find standing room there.

Nothing else of a material nature was done or attempted with a view to improving the approaches until, in 1881, the corporation of the city of London resorted, not for the first time, to the evasive measure which is invariably adopted by the House of Commons when in perplexity. They appointed a committee to inquire into the fish-supply question, and about six months later the home secretary instructed Mr. Spencer Walpole to report upon the handling and distribution of fish at Billingsgate. Both reports are now before us, and between them there is substantially no difference, although Mr. Walpole's is the abler and more searching of the two. Both agree in stating that Billingsgate is far too small and too difficult of approach by land to fulfill the duties imposed upon it as the sole wholesale and retail market for supplying fish to a population of from five to six millions, resident within 7 miles of the Royal Exchange—that is to say, upon an area which embraces about 150 square miles of ground.

A few brief extracts from each of these important documents will be of service in elucidating the bearings of the question. From the report of the corporation's fish supply committee let us select the following passage:

"We now come to the question which directly affects the corporation

as the market authority, viz, the sufficiency or otherwise of the present accommodation of Billingsgate market, and of the approaches thereto, to meet the requirements of the present day; and when, as regards the approaches, we plainly record our opinion of their absolute insufficiency, we make no new admission, but simply indorse the oft arrived at conclusion of this court. The prior question, however, as to the market accommodation is on a different footing. On three separate occasions, within little more than a generation, the market has been enlarged or entirely reconstructed, and therefore in this direction the corporation has given practical proof of its desire to keep pace with the requirements of the metropolitan fish supply; and yet, incredible as it may appear, not only the weight of evidence in this inquiry but the prior action of the court and a pending reference to the markets committee alike go to prove that even now additional market accommodation is absolutely necessary."

So far from it "appearing incredible" to us that additional market accommodation should be necessary, it would indeed be strange if a bit of land about twice the size of the site upon which Exeter Hall stands sufficed for the purposes to which it is now put, even if the land approaches to it were as ample and unobstructed as those which lead to Albert Hall or Kensington Gardens.

Reverting, however, to the report, we desire to call special attention to the following words:

"We now approach, not without diffidence, the crucial point of our duty, viz, the course of action which we deem it wise and right to recommend to the court. The whole of the information gathered together has received our closest attention, and we have the satisfaction of reporting that we have unanimously, though, as regards some members, not without altering a previous impression, arrived at the conclusion that one wholesale market is calculated to meet the requirements of the trade and the interests of the public. We are also of opinion that such market should be at the waterside; and, as a general principle we are further of opinion that there should be ample and sufficient approaches from all parts of the metropolis to the site of any wholesale fish market. We beg further to state that, although in our judgment the fish market ought to be at the waterside, yet, should the court be of opinion that an inland market for the reception and sale of railway-borne fish is also required, we in that event suggest either of the two sites, one in Farringdon road, to the north of Charterhouse street, and the other the site of the present Farringdon market, as appropriate for the purpose. Of the market itself, we are of the opinion that it should be one based upon the same system as that at present in existence in Paris, viz, a wholesale, a semi-wholesale, and a retail market, all under one roof. We recommend that no restriction whatever should be made as to hours of business, but that the market should be free and open at all reasonable hours calculated to facilitate the reception, sale, and dis-

tribution of fish. Finally, we are of opinion that, taken in connection with our earlier remarks as to destruction of spawn, and the taking of immature fish, and also the present rates charged for railway carriage, the following have, amongst other causes, contributed to the unsatisfactory state of the fish supply, viz:

"1. The small size of the market at Billingsgate.

"2. The utterly inadequate approaches thereto.

"3. The arrangement at present existing for its management.

"We have spoken frankly, and we fully realize that our recommendations involve important and costly changes, which, however, are called for by the present condition of things."

Before proceeding to show how utterly incompatible the recommendations of the corporation's fish committee are with the further existence of the Billingsgate monoply, it seems desirable to repudiate without further delay any agreement with the allegations of this report as to "the destruction of spawn and small fish, and the taking of immature fish." With this end in view we cannot do better than quote the words spoken at a meeting of the Society of Arts, upon the 10th of May last, by Professor Huxley, who is perhaps the highest authority in England upon such matters. In reply to a not very wise speech, complaining that the fish supply of London was falling off and the retail price of the article increasing, and attributing the mischief to the wholesale system of trawling now in vogue, "which destroys millions of small fish, and ruins no end of spawn," Professor Huxley rose and said that—

"He experienced much the same sensation as Rip Van Winkle must have felt when he awoke after his long sleep; for the speech he just heard was identical in spirit and almost in words with a great multitude of speeches which came before him about twenty years ago, when he had the honor of being a royal commissioner to inquire into the condition of our sea fisheries. That commission arose in this way: Mr. Milner Gibson, who was president of the board of trade, sent for him one day, and told him that a member for a northern county meant to move for a commission of inquiry into the destruction of the fisheries on the east coast by trawling, and asked him what he thought about it. He ventured to say that he thought it was all nonsense, and that Mr. Milner Gibson had better refuse the commission. He did so, but the member beat him in the House of Commons, and he sent for him (Mr. Huxley) next day and told him he must serve on the commission. He served on it for two years, during which time a larger body of evidence came before him than had come under the eyes of most people. The complaints then made of trawlers were precisely those they had just heard; that the damage done by line fishermen was destroying a great source of the supply of men to the navy; that it was destroying the breeding of fish in the North Sea, more especially cod, whiting, and haddock; and, not only so, but it was rapidly destroying that upon which the trawlers

themselves subsisted. It came out in evidence, first and foremost, that the fishing population supplied no appreciable contingent to Her Majesty's navy. It came out, in the second place, that the charge made against trawlers, that they would destroy the spawn of the fish ordinarily caught by the long lines, had no foundation; for, although it might appear strange for him to say so, yet he believed there was no body of men more absolutely ignorant of everything relating to fish, except the catching of them, than fishermen. The first complaint which came before them was that trawlers were bringing up an enormous quantity of spawn every day in their trawls; but, upon inquiry it turned out that what was supposed to be spawn was nothing but gelatinous inhabitants of the sea, which had just about as much to do with fish as cocks and hens to do with Jumbo. With regard to the charge made against trawlers of destroying spawn, he might mention that such fish as haddock and cod did not lay eggs at the bottom of the sea; their eggs floated at the top, so that it was impossible for the trawlers to destroy the spawn. Since that time there was abundant evidence to prove that, while trawlers had gone on steadily increasing, there had been no diminution in the number of cod, haddock, and whiting caught. Lastly, as to the supposed injury that the trawlers were doing themselves, there was no question that up to the present moment the amount of capital invested in trawling vessels had steadily increased, and he could not understand shrewd and clear-headed people like the last speaker putting their money into a business if it did not pay expenses. He could not describe the audacity of the statements made at that time with respect to trawl fishing. Witnesses came before the commission and stated that trawled fish were unfit for human food; that they were poisonous; and one man summed up all the demerits and atrocities of trawl fish by saying that they were "mashiated," though what he meant by the remark it is impossible to say. Beyond all doubt, if anything were done to stop trawl fishing on the enormous scale on which it was now carried out in this country; it would no longer be a case of complaining of the price of fish, but ninety-one out of one hundred would not be able to buy any fish except herrings and the like, which were caught in the open sea by nets. He could not give the figures now, but he recollected it being stated some time ago that 800 trawlers hailed from the port of London, and therefore it was preposterous to talk of interfering with their fishery. No answers had been put forward to the arguments adduced in the report to which he had referred, namely, the constant increase of capital put into the trawling business and the constant increase in the tonnage of the vessels employed; and to such patent facts as these, that a town like Brixham was absolutely built out of trawled fish, and the trawlers who caught the fish had trawled over a comparatively small area close to Brixham for the last 70 or 80 years, but the fishing was going on now as well as ever."

In these words Professor Huxley was but echoing the opinions of his

former colleague, Mr. Spencer Walpole, whose views we shall presently have occasion to quote. Before doing so, however, we invite our readers to observe that the recommendations of the corporation's committee require Billingsgate, as the sole fish market of the metropolis, to possess properties which are absolutely impossible and unattainable under the circumstances. In the first place, its land approaches could never be made sufficient without spending a sum of money which would stagger even the city fathers, and throw their yearly budget into inextricable confusion. Secondly, the approach by river through the Upper Pool will always present insurmountable difficulties. Thirdly, the area of the market is far too small, and cannot be increased unless the custom-house be given up to the city, which the Government has no thought of doing. So hopeless, indeed, did the retention of Billingsgate as the sole metropolitan fish market appear to be in the eyes of the civic committee that they were induced to turn their attention to other river-side sites, and specially to one near Blackfriars Bridge, the estimated outlay upon which would have entailed an expenditure of from £900,000 to £1,200,000, not to mention that the conservators of the river would be certain to forbid its selection, on the ground of the encroachment it would make on the water-way. Lastly, the committee avow their opinion that neither the enlargement of the area of Billingsgate nor the establishment of additional markets at Farringdon road or elsewhere "would supersede the necessity for providing better approaches for facilitating the traffic in that locality." A more damaging denunciation of Billingsgate than is supplied by the report of the corporation's own committee it would indeed be utterly impossible to conceive.

Mr. Walpole is equally explicit to the same effect. His report says:

"Fishing in the North Sea, the great source of the London fish supply, is carried on in two ways: (1.) By boats working in fleets on the Dogger Bank, on the Silver Pits, on the German coast, and on other favorable fishing grounds; and (2), by boats working grounds usually nearer home, either singly or with only one or two companions. When the boats work singly and near home they are rarely away for more than twenty-four or forty-eight hours; when they work in fleets they are away for weeks and even months at a time. In the former case the boats returning to port to unload the fish sell them on the fish quay; the fish are then packed by the buyers and sent to London by train. They are more or less exposed to the sun on the boat, and they are exposed on the fish quay; they are then packed, in ice it is true, in a truck which has perhaps been standing in the sun for some hours; they are brought up in a railway van to town and then carried in a van through the streets of London. But when the fish are caught by boats working in fleets fast steamers attend the fleet to carry the fish back to London. They are removed almost as soon as they are caught to the hold of the steamer, covered with ice, and never unpacked till the steamer reaches Billingsgate.

"It does not require much reflection to conclude that fish dealt with in this way are more likely to reach London in good order than those which are removed from the boat to the quay, from the quay to the railway van, from the railway van to the street, and from the street to the market. In fact I believe I am right in saying that no fish coming by water would be condemned if it were not for two reasons: (1.) It occasionally happens that the fleet has moved its position before the steamers arrive, and the steamers in consequence fail to find it. (2.) It also occasionally happens that the catch is so large that the steamers are unable to store the whole of it in their holds, and are forced to carry some portion of it on deck.

"It is obvious then that, except from accidental circumstances, there is and there need be no loss among the fish which reach London by water. Water-carriage is cheaper than land-carriage. A box of fish carried direct by water to Billingsgate costs 2*s.* 1*d.* for carriage. The same box carried by land costs 3*s.* 9½*d.*, viz, 1*s.* 7*d.*, its carriage to Grimsby, and 2*s.* 2½*d.*, its carriage to London. It is not surprising, therefore, that as the cost by water is less and as the fish arrive in better condition, the London salesmen should prefer water-borne fish, and should look for the solution of every difficulty by a further development of the water traffic."

Mr. Walpole proceeds to give his reasons for thinking that, despite its superior cheapness, water-carriage will never entirely supersede the land-carriage of fish. He states that with a view to discouraging the land-carriage of fish some of the merchants who came before him as witnesses went so far as to propose that single-boat fishing should be prohibited by Government, and the men forced to fish in fleets. This suggestion seemed, in Mr. Walpole's eyes, to be impracticable. Fishermen are influenced by the same motives as other men. They naturally object to a system of fishing which keeps them away from their families for weeks at a time, and prefer to it a system which enables them to return home once in every twenty-four hours, even though the result may be that their fish cost a little more for carriage to London and arrive there in rather worse order. Is it possible, asks Mr. Walpole, to provide that railway-borne fish shall reach London so that a very small proportion shall be in a condition to necessitate condemnation? The witnesses who appeared before him at Billingsgate were of opinion that if inspectors were appointed at the various ports to prevent the sending forward of fish which were already bad this highly desirable consummation might be attained. But where are these inspectors to reside? If at the principal ports the fishermen would certainly resort to other ports where there are no inspectors. If, however, inspectors were established at every port and village where boats can land the expense would be out of all proportion to the end aimed at. Nor could it be expected that the Government would consent to bear the charge of a duty which would primarily be of advantage to the metropolis alone. It would be

still more hopeless to ask local authorities to incur expense for a purpose diametrically opposed to the trade of their neighborhood. The only possible course seems to be to condemn in London the fish which are bad when they reach Billingsgate, and to trust to the effects of this condemnation to prevent salesmen from wasting money by sending other bad fish to London.

"If this conclusion be correct," adds Mr. Walpole, "then the state, not of Billingsgate, but of the approaches to Billingsgate, must, in my judgment, be held responsible for some portion of the loss which arises from the necessary destruction of condensed fish. I have already endeavored to describe what those approaches are. The vans arriving from the railway station, the carts of the retail dealers arriving to buy, make them almost impassable, and the system on which the traffic is, perhaps unavoidably, conducted, makes confusion almost hopeless. On general grounds it would apparently be desirable that the vans which reach the market first should be unpacked first, and should then proceed as empties to their destination. But in practice this is never uniformly done. The vans which arrive first may contain fish for which there is no particular demand, while the vans which are perhaps in the rear of the line may contain other fish for which there is a great demand. The vans, therefore, instead of being unpacked, are forced to move on, and thread their way through the crowded thoroughfares of London till they are able to obtain a fresh place in the line. One van, whose case was exceptionally unfortunate, returned in this way, not merely time after time, but day after day, and for eleven days. The fish which it contained were of course ultimately condemned.

"How, then, is the difficulty to be obviated which at present exists? I believe it to be impossible to obviate it till the approaches to Billingsgate are reconstructed, or the market is itself removed. A market does not deserve the name which does not afford (1) accommodation for buyers and sellers; (2) standing room, and, where perishable articles are concerned, standing room under covered ways, for the vans which are being unpacked; and (3) easy access. Billingsgate fulfills the first of these conditions. It wholly fails to fulfill the second and third of them. A market without approaches is, in fact, as inconvenient as a house of many stories with-out a staircase. It is said that the amateur architect is apt to forget the staircase when he builds the house. I should very much regret to call the corporation of London an amateur architect, but it has undoubtedly committed the mistake of reconstructing the market and of forgetting the approaches."

We have said enough to show that Billingsgate is past praying for; nor can much sympathy be expected from the public with the efforts made last session by a portion of the common council to save its life by defeating the London riverside fishmarket bill before the special committee of the House of Lords. Thanks to the refusal of Lord Salisbury and of the Duke of Richmond to sustain the two mischievous

clauses imported into the bill by the Lords' committee, and thanks also to the energetic speech of Lord Shaftesbury, these clauses were withdrawn, and there is at length a fair chance that London will shortly have a riverside fish market worthy of the largest and hungriest city in the world."

It remains for us to inquire what are the attributes and properties that a metropolitan fish emporium should possess, and to see how far they are supplied by the site at Shadwell, where it is understood that the new market authorized by the two Houses of Parliament is about to be established. What these essentials are was clearly laid down by the fish committee of the common council when they arrived at the following conclusions:

1. That one wholesale market is calculated to meet the requirements of the trade and the interests of the public.

2. That such a market should be at the water-side.

3. That there should be ample and sufficient approaches from all parts of the metropolis to the site of any wholesale fish market.

To these three very obvious conclusions a fourth might have been added to the effect that the market should be established at a point where the river is sufficiently wide for the sailing vessels and steamers moored at the market quay to be out of the way of the stream of floating traffic which passes ceaselessly to and fro along that crowded highway of nations.

That the site at Shadwell conforms to these conditions is evident from the following arguments which were deemed irrefutable by the special committees of the Lords and Commons when brought before them last session.

1. The London riverside fish-market bill authorizes its promoters to take about eight acres of land in the parish of St. Paul, Shadwell, four acres of which they bind themselves to appropriate for the new fish market and its approaches.

2. The site, like that of Billingsgate, is on the north side of the river, to which it has a frontage of 600 as against that possessed by the Billingsgate of 200 feet. It lies nearly two miles below London Bridge, at a point where the Thames is 1,100 feet wide, and being situated on the edge of a bay, out of the influence of the tide, and 500 feet clear of the ordinary traffic of the stream, it enables vessels approaching it to avoid the difficult and dangerous navigation of the Upper Pool, which is no ordinary advantage when we remember that the fish craft for the most part arrive in the dark.

3. The shore can be leveled so as to admit vessels of thirteen feet draught alongside the wharf at half tide. Vessels will lie next the wharf, and unload direct into the market, thus avoiding the expense, delay, and danger of the present system of discharging. There is a boat ferry at either end of the site, and a steam ferry is about to be reopened at a short distance to the west. This steam ferry can make from seven to

ten trips in an hour, and can take from seventy to ninety costermongers barrows at a time.

4. As regards the access to the market by land the streets and roads leading to the selected site at Shadwell are wide, unencumbered by ordinary traffic, and of easy gradients. Out of the eight acres acquired the market proper will occupy 75,000 square feet, or one acre and three-quarters, and the rest of the property will be laid out in ample approaches and in "lay byes" for carts and barrows, and also in the erection of the necessary shops, warehouses, and buildings connected with the market.

5. On the three land sides of the market there will be a broad street, so that four-and-twenty vans can lie side by side and unload simultaneously. Not a single fishmonger's cart or costermonger's barrow will be more than 150 yards away from the center of the market, so that the porterage will be reduced to a minimum and no time will be wasted. The market will be open all day, and accessible from a very early hour in the morning until late at night to ships approaching it by water and to costermongers approaching it by land. The maximum tolls fixed by the bill are very much lower than those charged at Billingsgate.

It will thus be seen that the Shadwell site fulfills all the conditions required by the reports of the corporation committee and of Mr. Walpole, who, having examined the spot, gave evidence in its favor before the House of Commons' committee. It should also be mentioned that no steps were taken by the promoters of this bill to get permission from parliament to make a new fish market at Shadwell until the corporation of London and the metropolitan board of works had been repeatedly urged, but in vain, to take the matter up. The want of additional market accomodations being admitted on all hands, what, it may be asked, is the corporation of London doing to supply it? With the exception of attempting to convert the fruit market at Farringdon into a fish market nothing has been or will be done; and it is admitted on all hands that an inland market of this kind will do little towards cheapening and making more abundant the coarser kinds of fish, which do not come to London by costly railway carriage but can only be brought by river.

These details can hardly be deemed uninteresting when we remember the stake at issue and the degree to which they affect it. There is and has long been a popular impression that many of our sea-fisheries are less fecund than of yore, and that the ocean is growing more and more to deserve the epithet of "barren," which Homer was so fond of applying to it. How far this is from being the case let the following passage from Mr. Walpole's speech, delivered before the Society of Arts upon the 10th of last May, suffice to attest:

"You are all acquainted," he said, "with the North Sea. You know that it is a comparatively small sea. It is fished by English, Scotch, Norwegian, Swedish, Danish, German, Dutch, Belgian, and French fish-

ermen, and I think I could prove to you (only it is unnecessary to go into statistics) that the fish which these fishermen are drawing from the North Sea is worth at least £25,000,000 every year. That sum, if I may translate the figures again into an intelligible language, is more than equal to the whole interest of the national debt of this country. This evening I am not concerned with the fisheries of Europe, but with the fish supply of London; and what I wish to point out to you, and what is very imperfectly understood, is the proportion of fish consumed in London which is drawn from the North Sea. I have tried to analyze the return as far as I am able to do so, and I find that, out of the 130,000 tons of fish which were received in London in 1880, in round numbers 100,000 tons came from the North Sea; that is to say that, out of every four fish which we eat in London, three came from the North Sea. Now, if this is the case, it is really essential to the subject for us to consider, however shortly, what is happening in the North Sea, because I know there is a prevalent impression that the North Sea itself and the seas of this kingdom generally are being over-fished, and that they are in consequence in danger of approaching exhaustion. I am bound to say that you will hear this allegation supported on good authority in Billingsgate, and that you may also hear it in many fishing villages on the coasts of England. Now I will give you my reasons for thinking that the North Sea and the seas of this country generally are not in danger of exhaustion. In the first place the prophecy of approaching exhaustion is not a new one. It has influenced the legislature for centuries, and it may be found in our literature since the days of the Tudors. I, for one, think that when you find a series of predictions which have uniformly proved false you may pretty well afford to disregard the same predictions when they are made in our own time. You can hardly enter into a drawing-room—you certainly cannot go into any company interested in fisheries—without hearing complaints of the scarcity of soles; and I do not deny that soles were exceptionally scarce last year. But I recollect that I was told myself at Scarborough forty-five years ago, in the year in which the Queen came to the throne, that a fisherman landed at Scarborough with a pair of soles, which he placed on the pier and said: 'There are the two last soles in the North Sea.' I do not deny that scarcity may occur again, as it undoubtedly occurred last year. But I regard such scarcities as temporary accidents and not as any permanent failure of the great source of fish supply."

Mr. Walpole then reminded his hearers that, like all other animals, man included, fish have a tendency to produce their numbers in greater ratio than their food is generated, and consequently the natural waste which is always going on in the sea is far more exhausting than any effect that multitudes of fishermen produce upon the fish. In the same way a warm or a cold summer has an enormous influence upon the abundance or upon the scarcity of animal and vegetable life. Some years, for instance, we talk of a plague of flies, of caterpillars, or of gnats. The

same thing goes on in the sea, and the minute forms of life upon which the fish feed are affected by the warmth or cold of particular years. When there is a defective production of these forms of alimentary life the fish are obliged to scatter in search of food, and are not collected together so as to be easily caught by the net or trawl. In conclusion, Mr. Walpole pointed out that, although man is singularly deficient in statistics bearing upon fish, it is possible to reason in some measure from the particular to the universal by examining the details of the herring fishing, with which we are more or less acquainted.

"We know," he continued, "that the Scotch fishermen on an average take one thousand million herrings a year. We know also that the Norwegian fishermen take from the North Sea another one thousand million herrings per annum, while I am sure that other fishermen who work the North Sea take at least another one thousand million. Therefore we may assume that the fishermen of Europe draw three thousand millions of herrings annually from the North Sea. I think it beyond doubt that the predacious fish and birds kill as many herrings annually as fishermen do, and therefore man and other enemies draw six thousand millions of herrings a year from the North Sea. Now I do not suppose that any one with the least acquaintance with the subject would say that all these enemies of the herring catch one in every hundred; but, to put myself beyond all possibility of error, I will assume they catch one in every two. Then at the end of the year the account must be, six thousand millions of herrings taken and six thousand millions left. Assuming that of those left half are females it is obvious that to maintain the stock these females must produce two herrings apiece to make twelve thousand millions next year. But a female herring does not lay two eggs; she lays from 20,000 to 30,000. Assuming that she lays 10,000 eggs, it is obvious that nature intends out of every 5,000 she lays that 4,999 should die. If it were not so the whole sea would be full of herrings."

The conclusion at which Mr. Walpole arrived is that "the North Sea is practically inexhaustible." These are encouraging words, and they are borne out by the evidence of Mr. Robert Hewett, who is the managing director of Hewett & Co., a limited company which owns eight steamers and sixty fishing smacks of its own, and has in addition nearly one hundred other fishing smacks under mortgage, and about thirty more associated with it. Mr. Hewett deposed that since 1864 the company which he manages—

"Have brought much more wet trawl fish to Billingsgate than any other firm or company; that the fleet under his control consists of 183 smacks; that the fleet fish during the night and in the morning put their catch, which is packed in boxes containing about ninety pounds of fish each, on board the steamers which wait upon them; that the boxes when taken on board the steamers are immediately put into the hold and buried in ice, and are thus brought direct to Billingsgate; that on

arriving at Billingsgate the fish, on the opening of the market at 5 a. m., is taken out of the hold, carried ashore, and sold box by box; that the amount realized by Hewett & Co. for wet trawl fish sold at Billingsgate during the last seven years amounts collectively to £1,210,409; that in the trade wet trawl fish are divided into two classes, prime and offal; that the prime consists of turbots, brill, soles, John Dorey, and red mullet; and offal of plaice, haddock, cod, skate, roker, whiting, sturgeon, hake, dabs, thornback, and gurnard; that a very large proportion of the offal brought to market by Hewett & Co. could not have been sent by rail, as it would not have fetched the rate charged for carriage; that if there was no water-carriage for fish to market nothing but the prime and the best of the offal would be sent to London at all."

The evidence of Mr. Hewett is deserving of special attention, because it is to him and to his father that Billingsgate is indebted for many valuable suggestions and improvements of the conduct of its trade. His father was the first to bring fish by water from the fleet in the North Sea direct to Billingsgate, and for this purpose he caused a line of fast-sailing carrier cutters to be built in 1843. Up to that time, and for many years previously, it was the custom to land considerable quantities of fish at Yarmouth, which were sent up to London by rail, while other lots were brought by river to Gravesend and despatched thence to Billingsgate by hatch-boat. From 1843 to 1864 the swift-sailing cutters worked with great success, but in the latter year they were "run off the road," not by the railways but by steam carriers which were then started. The first ten sailing carriers were built and put on by the elder Hewett in 1843 and 1844; the first six steamers by the younger Hewett in 1864 and 1865. There are now not less than twenty-one steam carriers running to London. They belong to several companies, each of them distinct from the others, and they work in connection with five large fleets in the North Sea. Nor ought we to omit mentioning that the bulk of the fish came to Billingsgate packed in baskets until 1856, when boxes were for the first time tried by Hewett & Co. Four years later baskets had entirely died out, and in 1860 all trawl fish came to market, as they do now, in boxes containing from ninety to a hundred pounds apiece.

Enough has been said to show what weight attaches to Mr. Robert Hewett's testimony, when he affirms, "as the result of many years experience," that double the quantity of fish now sold in London could readily be disposed of if there were but proper accommodations at the river-side to receive it. It is well known, he adds, by all who deal extensively in the coarser kinds of fish, that however large the supply the demand more than keeps pace with it, and that the price is never lowered. There can, in fact, be no doubt that if, as he anticipates, Mr. Hewett and his company can pour three or four hundred tons of roker every day into the metropolis through Shadwell market they will be conferring a benefit upon the poor of which it would be impossible to overstate the magnitude. Roker—by which all fish of the ray fam-

ily, excepting skate, are meant—is a favorite food of the working classes, to whom it could be supplied retail at three pence or less per pound. There are medical men, among whom Sir Henry Thompson and Dr. Priestley are, we believe, included, who hold that for delicate digestions nothing is so healthy and invigorating as a diet consisting almost exclusively of fish. But it is not in the interests of the rich that the enterprise was conceived which is about to give us a fish market with all the merits and none of the defects for which Billingsgate has long been noted. How can the value of a constant supply of fresh fish, obtainable at about one-fourth or one-fifth of the price exacted from him for fresh meat, be estimated and appraised by the working-man? The question is more than ever significant when it is borne in mind that there are many signs presaging a considerable rise in the price of beef, and still more of mutton, before the end of next year. According to the "Balance Sheet of the World," compiled by Mr. Michael G. Mulhall, F. S. S., Europe consumes annually 853,000 tons of meat beyond what she produces. From whence is England to derive her supplies of this precious commodity, which she produces at the rate of 1,205,000 tons and consumes at the rate of 1,800,000 tons per annum? To make up our yearly deficit, amounting to about 600,000 tons, the United States have, until lately, been the most liberal of our many contributors. But beef is at this moment as dear in New York as in London, and the power of the United States to supply England with meat is obviously declining. The rapid growth of the American population is enough to explain that, in a country already numbering about 55,000,000 inhabitants, 32,000,000 sheep and 13,000,000 bullocks are not much in excess of that country's own wants.

Doubtless we shall receive large consignments of frozen mutton from the Australian colonies; but years upon years will have to expire before the contributions from that source, added to others from Brazils, the Argentine Confederation, the River Plate, and possibly from Russia, will begin to make themselves sensibly felt in this country. The greatest perplexity, in short, with which statesmen can be threatened—a deficiency in one of the most essential staples of the nation's food—seems to be impending over Great Britain and Ireland. How is it to be met?

Lucan tells us in one of the finest passages of his Pharsalia, that Cæsar, upon returning to Rome, dismissed all thoughts of war from his breast, and addressed himself to the task of providing ample supplies of food for the fickle populace, conscious that it is famine alone which lashes cities into revolt, and that a "starving people knows no fear." Far be it from us to suggest that England is threatened, ever so remotely, with famine. But that beef and mutton are likely to rise in price is the undoubted opinion of our most competent authorities, and in the face of a serious deficiency in meat we can conceive nothing more useful or more welcome than a large and sustained addition to the fish supply of London.