annual tax will be amply available to discharge the amount borrowed in annual payments, as that of the Bayswater Tunnel Sewer has been, until the whole loan shall vanish, leaving London in possession of *cloaca maxima* superior in extent and importance to the boasted constructions of Rome.

AN OLD COMMISSIONER FOR WESTMINSTER.

The Bayswater Tunnel Sewer is about half a mile, say 2,640 feet, it cost 6,300*l.*, or about 2*l.* 8*s.* 4*d.* per foot; the eastern line of sewer may be computed at eight miles, or say 43,040 feet, which at 10*l.* per foot would be 430,400*l.* the double of this sum will doubtless effect the object of a perfect drainage without issue into the Thames, except as above attempted to be described.

## INTERMENTS IN TOWNS.

It appears that Mr. Chadwick, the secretary of the Poor Law Commissioners, has, at the request of Sir James Graham, been inquiring into the subject of interments in towns, and the report upon the matter has this week been published. From this we conclude that the Government contemplate some legislative measure with a view to mitigate those evils which unquestionably exist, and remove the danger which results from the dead and the living being crowded together within a few yards of each other, as in most towns of consequence is found to be the practice. There is no doubt, as Mr. Chadwick states, that emanations from human remains are likely to produce fatal diseases, and deprave the general health of those exposed to them. This has been shewn repeatedly by high medical authority. Instances of proof have been again and again pointed out; and it is impossible to tell to what extent disease and death have been spread abroad from the system of burial in the edifice in which hundreds weekly, perhaps daily, assemble—from the practice of using in tombs in which openings are left, wooden coffins only, which necessarily in a few years decay, and the air is impregnated with unhealthy effluvia—and from the constant up-turning of the soil, which, in a populous parish and a church-yard of limited extent, is little more than one mass of human remains. Besides, not only is the health of the people injured, but their feelings are often shocked, as we have lately heard in several disgusting instances in the metropolis, by the unavoidable disturbance of the sanctuary of the dead, long ere they have lost the marks and traces of humanity by crumbling again to their native dust. On these grounds, and looking to the importance and intricacy of the subject, the interests that may be brought into conflict, and the difficulties which have generally met private companies in the attempts to remedy the evils, we agree with Mr. Chadwick, that "the practice of interments in towns in burial-places amidst the habitations of the living, and the practice of interment in churches, ought for the future, and without any exception of places or acceptation of persons, to be entirely prohibited;" and that instead of the work being left to private associations, national cemeteries of a suitable description "ought to be provided and maintained."

The mode in which it is proposed to effect this object is by providing for the expense of establishing national cemeteries by means of loans to be spread over a period of years; the burial fees and existing duties being collected and formed into a general fund, from which these loans should be repaid, and the compensation drawn which may be awarded to interests disturbed by the new arrangement. This seems practicable and fair, and thus far we are disposed to acquiesce in the plan.

But then come suggestions, some of which we are sure are repugnant to the general feeling of the community, and others are unnecessary and unjust. Here is one—

"That for the avoidance of the pain and moral and physical evil arising from the prolonged retention of the body in the rooms occupied by the living, and at the same time to carry out such arrangements as may remove the painful apprehensions of premature interments, institutions of houses for the immediate reception, and respectful and appropriate ease of the dead, under superior and responsible officers, should be provided in every town for the use of all the classes of the community."

If it be meant by this that on the death of a person the body shall be laid hold of by a government officer, and *snatched* away from the sorrowing survivors to be deposited in a dead-house, under the care of parties whom the relatives neither appointed nor can control, then we say it is astonishing how any man could seriously propose such a violation of the settled habits and natural feelings of the people. An awful sanctity surrounds every thing connected with the dead; and those who have lost some cherished object—a child, a wife, a husband, or a father—know with what melancholy tenderness they have day by day visited and watched the loved remains till they were reluctantly yielded to the grave. This may be a weak feeling, but it is interwoven with the finest sensibilities of our nature, and we are quite sure that Sir James Graham will not attempt to violate it, by asking Parliament to enforce a regulation upon the whole community, which would only be justifiable, if justifiable at all, in extreme cases of cholera and fever.

Not content with interfering with the feelings of the people, Mr. Chadwick proposes to cut up root and branch the trade of the undertakers. He next suggests—

"That for the abatement of oppressive charges for funereal materials, decorations, and services, provision should be made (in conformity with successful examples abroad), by the officers having charge of the national cemeteries, for the supply of the requisite materials and services, securing to all classes, but especially to the poor, the means of respectable interment, at reduced and moderate prices, suitable to the station of the deceased and condition of the survivors."

It is calculated that in England nearly five millions is paid annually for funerals. All this Mr. Chadwick proposes to take out of the regular currents of trade, and give to his officers of the cemeteries, thus seriously and unjustly injuring a large and most respectable class of tradesmen, amongst whom the natural course of competition prevents that "extortion" which is alleged as the ground of interference.

We regret that these and other objectionable propositions should be linked to the report, because they will excite a feeling against an alteration which is much needed, and if well and discreetly made, would be widely beneficial. It was a matter which required to be treated with great caution and delicacy; and to connect with it matters which would be regarded as an outrage on the living and an impertinent interference with trade, was most unnecessary and impolitic.

## SCIENCE IN LANCASHIRE.

The northern counties of England have been much noted for men of mathematical ability and general scientific information: even among the humbler classes of society the science of mathematics, and in particular that of pure geometry, seems to have been cultivated with the greatest success. The following extract which appears in the *Manchester Courier* of the 9th December, from a letter on this subject by George Harvey, Esq., F.R.S., to the British Association on its first meeting at York, will be read with interest.

"It was my intention," says Mr. Harvey, "had I been enabled to enjoy the privilege of attending at York, to have drawn the attention of the meeting to the very remarkable circumstance of the geometrical analysis of the ancients having been cultivated with eminent success in the northern counties of England, and particularly in Lancashire. The proofs of this may be gathered from a variety of periodical works devoted almost exclusively to this lofty and abstract pursuit. I have now before me several beautiful specimens of the geometry of the Greeks, produced by me in what, for distinction sake, we call the inferior conditions of life. The phenomenon (for such it truly is) has long appeared to me a remarkable one and deserving of an attentive consideration. Playfair, in one of his admirable papers in the *Edinburgh Review*, expressed a fear that the increasing taste for analytical science would at length drive the ancient geometry from its favoured retreat in the British Isles; but at the time he made this desponding remark, the professors seemed not to be aware, that there existed a devoted band of men in the north, resolutely bound to the pure and ancient forms of geometry, who, in the midst of the tumults of steam-engines, cultivated it with unyielding ardour, preserved the sacred fire under circumstances which seem, from their nature, most calculated to extinguish it. In many modern publications, and occasionally in the senate house, problems proposed to the candidates for honours at Cambridge, questions are to be met with derived from this humble but honourable source. The true cause of this remarkable phenomenon I have not been able clearly to trace. A taste for pure geometry, something like that for entomology among the weavers of spitalfields, may have been transmitted from father to son; but who was the distinguished individual first to create it, in the peculiar race of men here adverted to, seems not to be known. Surrounded by machinery, with the rich elements of mechanics in their most attractive forms, we should have imagined that a taste for mechanical combinations would have exclusively prevailed; and that inquiries locked up in the deep and to them unapproachable recesses of Plato, Pappus, Apollonius, and Euclid, would have met with but few cultivators. On the contrary, Porisms and Loci, sections of ratio and of space, inclinations and tangencies,—subjects confined among the ancients to the very greatest minds,—were here familiar to men whose condition in life was, to say the least, most unpropitious for the successful prosecution of such elevated and profound pursuits."

In consequence of the poverty of several individuals of this humble class, residing in the neighbourhood of Manchester, who have distinguished themselves by their devotion to science, a meeting of persons favourable to the formation of a society for the relief and encouragement of scientific men in humble life, was lately held in that town under the presidency of the mayor, and was attended by many influential gentlemen. Resolutions for the formation and support of such a society were adopted, and the proceedings, which were reported in the *Manchester Courier*, of the 9th Dec., are of considerable interest.

Among other remarkable cases mentioned at the meeting are those of James Crowther, of Salford, formerly a weaver, who has distinguished himself as a botanist, and John Butterworth, of Haggate, near Royton, also formerly a weaver, who has acquired much celebrity in the neighbourhood by his successful cultivation of several branches of the mathematics, and especially that of pure geometry. These men are now, in their old age, much distressed by poverty and sickness. Many interesting details were given in the course of the meeting respecting their scientific pursuits and progress. It appears that Butterworth, from the commencement of the 19th century up to the present time, has been a regular contributor to several of the mathematical publications of the day. Hundreds of his solutions have been inserted in the Ladies' and Gentlemen's Diaries, in the Mathematical Companion, and in Leybourn's Repository, in which may be found the names of many of the most eminent mathematicians of the present day. It is to be hoped that in this university a few may be disposed to render assistance to these humble cultivators of science.

TUNNELLING THE TYNE.—An ingenious plan has been suggested of crossing the Tyne by passing through a tunnel under the river, on the principle of the centrifugal railway. The carriages would descend by their own gravity into the tunnel from one side, and rise up on the other by the momentum acquired in the descent. It is proposed to construct the tunnel of metallic tubing, and lay it just within the bed of the river, so as not to form an obstacle to the navigation: the tunnel to be constructed of such a bore, as to obviate the possibility of the carriages getting misplaced in their passage. Railway carriages and vehicles of all kinds as well as passengers, would thus be safely and rapidly transferred from one side to the other. It is considered, that with the present low price of iron, three tunnels might be cheaply constructed, all starting from the station of the Brandling Junction Railway, one proceeding in the direction of Newall-street, the other in that of the Castle-garth, and the third going towards the station of the Newcastle and North-Shields Railway.—*Newcastle Journal*