AMERICAN RAILROADS AND AMERICANISMS IN LONDON.

It is well known that our countryman, Mr. G. F. Train, has introduced street railroads into Liverpool and Birkenhead, England, and he is now in London endeavoring to introduce the system into the British metropolis. At a dinner given to him by some of the public men of London, he made a characteristic speech, and remarked that "as a nation," the English language was more accurately and purely spoken in the United States than in Great Britain. The remarks created loud laughter, whereupon the speaker exclaimed:

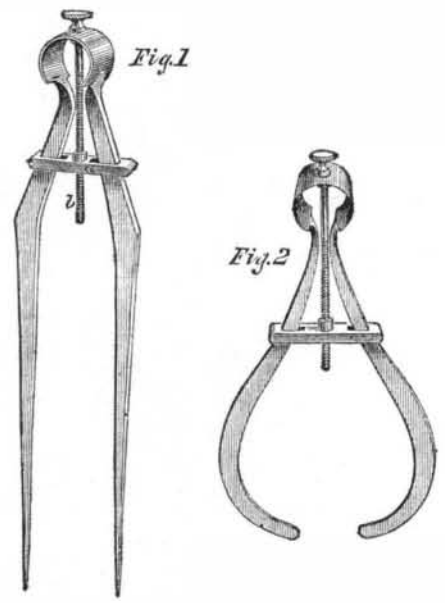
"I will prove it. Order your dinner in every village from Maine to California, and they will understand you for 16,000 miles! but go 500 miles, from Aberdeen to Dover, and you can loose yourself in a Babel of tongues. Remember, gentlemen, the Americans don't speak Gaelic, or Manx, or Celtic, or Welsh—(laughter)—and, I assure you, upon my honor, Yorkshire and Lancashire are not taught in our common-schools (laughter); and I am informed, on good authority, that there are no professors of Irish or Scotch in our academies. (Applause.) Lindley Murray, Lord Lyndhurst, and Noah Webster, were all Americans! Our written language will always be English—our spoken language is American. The time has arrived to state that Sam Slick is not an American institution! that American securities are safer, and pay better, than those of any other nation—(Oh!)—that the almighty dollar is not so much respected in the social world by the Americans, as the almighty shilling by the English—(Oh! and laughter)—that Americans never filibuster, while England never did anything else—(Hear, hear, and applause)—that our people, as a people, are more temperate, more moral, better educated, and better dressed, than their illustrious predecessors—(Hear, and roars of laughter)—and that the tooth-brush story, like Arrowsmith's railways and revolvers in Georgia, has turned out to be a hoax. (Laughter and applause.) England views mankind from a first-class carriage—hence, when a few thousand West-Enders go to the sea-side, they say everybody is out of town! What egotism! All the misconception has arisen by comparing the English dress circle with the American pit—or Oxford and Cambridge against all America! Compare dress-circle with dress-circle, gallery with gallery, pit with pit, and then America will receive justice in Europe. (Applause.) * * * * England has always been looking out of the cabin at America in the forecastle—England has been the pulpit, America the audience—England the schoolmaster, Americans the scholars. That day has passed away. A published idea is an expired patent."

The London *Star* of the 12th ult., says "the Metropolitan Street Railroad question was again brought before the Marylebone Representative Council yesterday. The enterprising Mr. Train attended in support of his plan, and Mr. Wilkinson, on behalf of the London General Omnibus Company, and a gentleman named Curtis appeared for the purpose of urging delay—both of these parties having schemes of their own to promote. The vestry, however, resolved, by a very decided majority, to accede to Mr. Train's application. We may soon expect to see these street railroads as common in England as they are in the great cities of America."

THE ELECTRICITY OF THE TORPEDO.

The results of some curious experiments on the electricity of the torpedo have been recently published by the distinguished Italian naturalist, M. Matteucci. We learn that the electro-motive power of the organ of the torpedo exists independently of the immediate action of the nervous system. If a section of the electric organ of the torpedo which has been dead 48 hours, or if the torpedo be exposed for the same number of hours to the action of the open air, or left for 24 hours in a frigorific mixture where it may have hardened or become frozen, or if kept during the latter period in water at a temperture from 104° to 122°, be made to communicate with a galvanometer, a great deviation will be produced. If the torpedo be killed with the poison curare or woorali, it will present the same electro-motive power as if it had died naturally. In its operations as a nerve discharging battery, its electro-motive power is considerably increased under stimulated action. When the nerves of the organs have been several times excited in succession, that power for which the torpedo is so remarkable is greatly increased, and will produce a greater number of discharges than it would in its normal condition. For instance:—Let two pieces of equal dimensions, each containing a strong nervous filament, be prepared on one of the organs of a torpedo; let them be placed on a piece of gutta-percha with the two nerves opposite to each other, and situated perpendicularly to the prisms of a thermo-electric apparatus; on closing the circuit of the galvanometer, a small differential current becomes apparent, but soon disappears. Then if the nerve of a galvanoscopic frog be placed upon each organ, and the circuit be broken under a mercury bath while the nerve of one of the pieces is being irritated with the points of a fine pair of scissors, the frog then in contact with that piece will exhibit violent convulsions. When after this the nerve is left at rest, and the circuit of the galvanometer again closed, a strong deviation, which lasts a long time, is perceived in the direction of the excited organ. The electro-motive power of the organ of a torpedo is not influenced by the nature of any gaseous medium in which it may be left for twenty-four hours. This is proved by comparing, in opposition to each other, two pieces preserved in different gases such as hydrogen, oxygen, carbonic acid, and atmospheric air more or less rarified; when it will appear that there is no constant difference between the electro-motive powers of the two pieces.

STRANGE'S IMPROVEMENT IN SPRING DIVIDERS.



The neat and compact dividers and calipers represented in the annexed cuts were invented by Joseph W. Strange, of Bangor, Maine, and the invention was secured by Letters Patent, dated Sept. 11, 1860. The improvement is so clearly displayed by the engravings, as to hardly require a description. Instead of the ordinary screw through the two legs of the instrument, the legs are passed through a sliding yoke, *a*, and their divergence is varied as desired, by turning the screw, *b*, which works through the yoke and through the middle of the bow.

By this means, a neat and symmetrical instrument is produced, which is perfectly balanced and has no long screws or thumb pieces projecting from its sides.

Further information in relation to this invention may be obtained by addressing John S. Jenness, the assignee of the patent, at Bangor, Maine.

THE remarkable number of suicides that have taken place lately has greatly occupied the attention of psychologists and physiologists. M. Bierre de Boismont has lately read an essay upon general paralysis and its premonitory symptoms. The symptom to which he attaches most importance is a complete change in the habits and character of the person attacked. When an individual who, naturally gentle and patient, becomes subject to fits of violent anger, or a person sincerely Christian and of pure morals, assumes a strange liberty of thought and manners, we shall not once in a hundred times deceive ourselves if we take these symptoms as prognostics of a disorder of the brain, which will soon degenerate into general paralysis.

IMPORTANT TO INVENTORS.

The United States Patent Office at Washington contains nearly 30,000 models pertaining to patented inventions, all of which are open to public inspection and examination, together with the drawings and specifications relating thereto. But the distance of the capital, and the time and expense involved in a journey thither, deters, in effect, the majority of inventors from reaping the advantages which a personal examination of previously patented inventions might oftentimes give them. To obviate this difficulty we are in the habit of making these examinations at the Patent Office for inventors. When it is desired to ascertain definitely whether an invention, believed to be new, has been previously made, or to what extent, if any, it has been anticipated, the applicant sends to us a rough sketch and description of the device. We then make a thorough examination in the Patent Office at Washington, and report the result to the applicant. The charge for this service is only $5; and it is frequently the means of saving the applicant the entire expense of preparing a model, paying government fees, &c., by revealing the fact that the whole or a material portion of his improvement was previously known. This preliminary examination is sometimes also of importance in assisting to properly prepare the papers, so as to avoid conflicting with other inventions in the same class. The reader should carefully note the distinction made between this preliminary examination at the Patent Office and the examination and opinion given at our own office, either orally or by letter, for which no fee is expected. It is only when a special search is made at the Patent Office that the fee of $5 is required. We are able, in a vast number of cases submitted to us, to decide the question of patentability without this special search.

THE BIG SHIP.—The latest accounts which we have of the *Great Eastern* is that she is sitting fast on her gridiron at Milford Haven, and that the captain and all hands are paid off. It is reported that she will nestle in this manner all winter. It is also stated that it has been impossible to get at some parts of her bottom, to coat it with paint, so that she will be in great danger of being injured by rust.