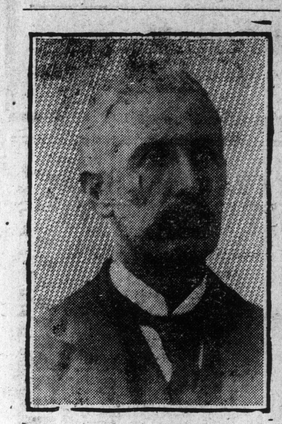
LEADING MEMBERS OF THE FIFTH CONGRESS OF CHAMBERS OF COMMERCE

The following brief notice of some of the leading delegates attending the recent meeting of the Chambers of Commerce of the Empire in Montreal will prove interesting just now, particularly as some of the gentlemen will arrive in this city tomorrow night:

Lord Brassey, K.C.B., D.C.L., D.L., J.P., 1st Baron, eldest son of Thomas Brassey, the well-known contractor for public works, was born at Stafford on February 11, 1836, and educated at Rugby and University College, Oxford, graduating in honors in the modern law and history school. Lord Brassey began his career in parliament by seconding a motion by Mr. Thomas Hughes in 1860 for an inquiry into the labor laws. In 1871 he began the first of a series of speeches on naval administration. The subjects dealt with have included the defence of the commercial harbors, the organization of the comptroller's department of the Admiralty and of the dockyards, the principal reform advocated being a more decentralized management. In treating of ship-building policy, the objections to extreme dimensions have been strongly urged. The question of the naval reserves was brought forward by Lord Brassey in parliament on several occasions, and he succeeded in obtaining



LIEUT.-COL. DENISON, Toronto.

the consent of the Admiralty to the enrolment of a second-class reserve, for which the fishing population would be eligible. The present strength of the force is 10,000. He also took an active part in establishing the Royal Naval Artillery Volunteers. Lord Brassey moved for a select committee on the Euphrates Valley railway in 1871, and for a Royal Commission on Marine Insurance in 1875. In 1879 he seconded Mr. Chaplain's motion for the appointment of a Royal Commission on Agriculture. In 1874-75 he served on the Royal Commission on Unseaworthy Ships, in 1885 he was appointed a member of the commission on the defence of the coaling stations, and in 1893-94 he acted as the president of the Royal Commission on Opium, which held its inquiry in India and Burmah. As a yachtsman, Lord Brassey has made many distant voyages. In 1876-77 he went round the world in the Sunbeam. In 1884 he visited the West Indies, and in 1886-87, India, Australia, and the Cape. A series of letters by him on the state of the defences of the coaling stations on the route to Australia by the Suez canal, and to India by the Cape of Good Hope, was published in the Times. He was the first yachtsman who obtained a Board of Trade certificate for competency to navigate as master. The late Lady Brassey was the author of the well-known work, "Voyage of the Sunbeam," and other popular books of travel. She died at sea October 14, 1887.

Sir Albert Kaye Rollit, M.P., LL.D., D.C.L., D.L., was born in 1842, and is

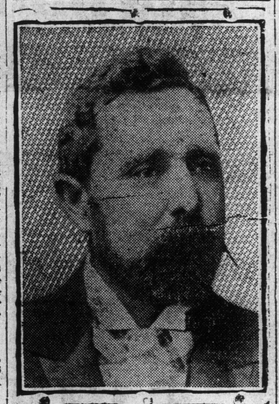
MR. M. DE P. WEBB, Karachi, India Chamber of Commerce.

the son of the late John Rollit, of Hull. He was educated at King's college, London, of which he is a fellow and governor, and was gold medallist of the university of London, of which he is B.A., LL.D., fellow, and member of senate. He became a solicitor in 1863, and was prizeman of the incorporated Law Society. He is senior partner in Rollit & Sons, of London and Hull, and in Bailey & Leetham steamship owners, of Hull, London, Newcastle, and Manchester; director of the National Telephone Co.; alderman for Hull, of which he was mayor, 1883-85; J.P. for London; D.L. for the West Riding, the city of York, and the Tower of London; commissioner of lieutenancy for the City; president of the Association of Municipal Corporations; president of the Associated Chambers of Commerce, and, till lately, of the London Chamber of Commerce; president of the British Commission of the Brussels International exhibition in 1897; hon. lieutenant-colonel in the Engineer Militia; elder brother of the Trinity House, since 1891; honorable freeman of Hull since 1890, of Huddersfield since 1894, of the Carpenters' company, London; and Board of Trade representative on the Humber Conservancy. On the occasion of his retirement from the presidency of the London Chamber of Commerce, after five years' tenure of office, he was presented in December 1898 with a silver casket containing a letter of thanks. Among other foreign orders he has the Knight Commandership of the Iron Crown of Italy, of Leopold of Belgium, and the Double Dragon of China.

Lieut.-Col. George Taylor Denison, Ontario public service, comes of a family which has won a high place in the annals of Canada. His great-grandfather, Capt. John Denison, of the 2nd West York regiment, England, was one of the pioneers of Toronto, where he settled in 1796. His grandfather, Lieut.-Col. Geo. Taylor Denison, served as a volunteer officer in the war of 1812, and in the rebellion of 1837 commanded a volunteer cavalry troop, which is now known as the Governor-General's Body Guard. He was also prominent in city politics, being a member of the first city council. He married the only child of Capt. Richard Lippincott, a U.E. Loyalist officer from New Jersey, and by this marriage he had a son, born at Bellevue, Toronto, 1816. This son, the father of the subject of this sketch—also Geo. Taylor Denison—though a lawyer by profession, gave his chief energies to the Canadian volunteer service. In 1838 he was appointed lieutenant in the Body Guards, then commanded by his father, and in 1846 he obtained command of the troop. He may be regarded as the father of Toronto's militia, since he organized cavalry, artillery, and rifles. The Queen's Own was one of the corps raised by him. Like his father, he was also prominent in civic affairs, and was for a long time alderman for St. Patrick's ward. The subject of this sketch was born in Toronto, August 31, 1839. He was educated at Upper Canada college, and graduated LL.B. at Toronto university in 1861. Called to the bar the same year, he practised his profession in his native city, being for some years in partnership with his brother, the late Lieut.-Col. F. C. Denison, C.M.G., M.P. Elected to the city council, he sat therein as alderman for St. Patrick's ward, 1865-67, when he declined re-election. In 1872, and again in 1873, he was sent to England by the Ontario government as a special commissioner in behalf of immigration. In 1877 he was appointed police magistrate for the city of Toronto, an office he still retains. His military service commenced 1855, he being then gazetted cornet in the Governor-General's Body Guard. He became captain of his troop, April 22, 1857, was promoted major in 1862 and lieutenant-colonel 1866. Lieut.-Col. Denison holds a first-class cavalry certificate. He was on active service during the Fenian raid, 1866, and commanded the outposts on the Niagara river, under Col. (now F. M. Lord) Wolseley, in the autumn of that year. He was again on active service during the Northwest rebellion, 1885 (mentioned in despatches and medal). He has been a frequent contributor to the newspaper and periodical press on subjects of national and military importance, and has likewise appeared on the lecture platform in advocacy of Canada's rights and of the preservation of the unity of the Empire.

Isaac Beckett, representing Dublin Chamber of Commerce, in which he is a member of the council. Connected with the firm of Beckett & Sons, petroleum importers and wholesale druggists, Fleet street, Dublin. Justice of the peace for the city and county of Dublin.

Samuel Bagster Boulton, representing the London Chamber of Commerce and the Timber Trade Federation of the United Kingdom. Is a member of the council and a past vice-president of London Chamber of Commerce, and is the founder and past president of the Timber Trade Federation; chairman of the Burt, Boulton and Hagwood, Ltd., timber importers and merchants and chemical manufacturers at London, Paris,

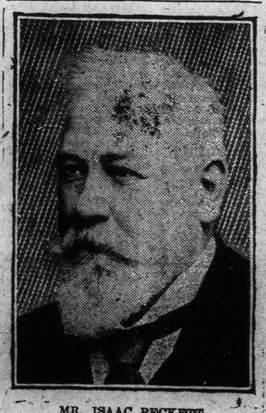


MR. W. F. ANDERSON, of Kimberley Chamber of Commerce.

Riga, Bilbao, Bordeaux, Belgium and other places. Also chairman Dominion Tar and Chemical Co., Ltd., Sydney, N.S., importer from and manufacturer in Canada. Mr. Boulton has spoken on trade subjects at the previous four congresses of Chamber of Commerce of the Empire, and has also taken a prominent part in the discussion of labor questions. Telford medallist of the London Institute of Civil Engineers. Mr. Boulton has written much for various periodicals on scientific aspects of manufactures. Mr. Boulton is chairman of the London Labor Conciliation and Arbitration Board. Is justice of the peace for Middelsex, for Hertfordshire and for West Ham. On a previous visit to Canada in 1881, Mr. Boulton made the personal acquaintance of Sir John Macdonald and Sir Alex. Campbell, and on the death of the former he wrote an obituary notice of him in the Nineteenth Century, giving details of conversations which they had had on topics of public interest. Mr. Boulton is accompanied by Miss Boulton.

James Hargreaves, representing Blackburn and District Chamber of Commerce. Principal of James Hargreaves, tobacco merchant, Blackburn.

Lieut.-General John Winburn Laurie, M.P., representing London Chamber of Commerce, being chairman Canadian trade section. Operates farm in Canada. Is president of the Board of Agriculture. Member of parliament for Pembroke in Imperial House of Commons, and formerly M.P. for Shelburne, N.S., in Canada. Commanded the Militia in Nova Scotia previous to Confederation, and later on in British Columbia. General Laurie is accompanied by Mrs. Laurie and three daughters.



MR. ISAAC BECKETT, Dublin.

Montagu de Pomeroy Webb, representing Karachi Chamber of Commerce, in which he is member of managing committee. Manager of the Karachi branch of Messrs. Forbes, Forbes & Co., Ltd., London, import and export merchants and steamship agents at London, Liverpool, Calcutta, Bombay and Karachi. Do no colonial trade whatever. Mr. Webb has written and spoken on economical, financial and currency subjects. Is an elected member of the Karachi municipal council, chairman Society for Prevention of Cruelty to Animals, Karachi. Author of several works on local matters; also of "The Great Power," "A Memorandum on the Indian Currency," "Monetary Progress in the Victoria Era," "The Money of the Future," "In Defence of the Rupee," "British Commerce: A Reply to Mr. Carnegie."

COFFEE MAKING

Fully twenty sorts of patented coffee-making machines are now in current use, besides the coffee biggins and boilers of familiar pattern and coffee filters of various sorts to be fitted to simple pots.

New ideas in coffee pots are shown at every big exposition, and enough novelties in this line are invented each year to show that the inventors consider the subject well worth their talents, and to prove that a large proportion of the world's people do not believe that the acme of coffee-making has been reached.

One dealer has fifty varieties of coffee pots on his list, and another

says that there are so many in stock it would be a task to count them. But, doubtless, these statements apply to the various grades of material and the different sizes rather than to the original models.

The literature of coffee-making as instanced in the printed rules for the use and care of the various machines lined up in the dealer's showcase would fill a good-sized volume. Many of these printed directions appear in two or more languages.

The person of liberal cosmopolitan leanings might breakfast on Turkish coffee one morning, Russian the next, Austrian or German the next, in fact, having the concoction made after the fashion of a different nation for many consecutive days without exhausting the list. All the prominent foreign nations have coffee machines representing them except the British.

Most of the elaborate coffee machines for home use are complete in themselves, each mounted on its own spirit lamp, and some are so nicely adjusted that the calculations are for so many cups rather than pints or quarts of the beverage.

Nearly all are designed for the amateur coffee maker, having so many gauges and conditions that no possible mistake can be made in the particular shape for cleaning out the crevices and banishing the dried coffee scum that is apt to adhere to most coffee pots regularly used.

The new coffee mills are of a character to make the old familiar side coffee mill appear very ordinary and cheap. The old style mill is still liked for its convenience, but the modern mills are of a showy exterior, some of the finest wood or of china with nickle-plated framings, and works so well adjusted that the grain is turned out of one grade of fineness.

The small two and three cup machines are meant for students, invalids and travelers, and for the people to whom coffee is a pet beverage, to be brewed with individual care and attention. These believe that only the coffee that is carefully selected, freshly roasted and ground immediately before making, is fit to drink. They roast and glaze the beans themselves in the improved coffee roasters.

Each coffee specialist glazes the new-cooked coffee according to his own pet theory. Some use egg, some butter or good lard, some butter and a little sugar. Many opinions prevail as to the amount of glazing needed And some theorists contend for no grease or glazing at all.

Despite the enormous output of coffee-making apparatus there are certain points at which the various practical experimenters have seemingly agreed to disagree, namely, as to the efficacy of fine ground or moderately coarse ground coffee for providing the finest drink, and whether the water should be first boiled and then put on the coffee or poured on cold and allowed to boil a stipulated time.

Probably no other article of everyday fare has elicited such discussion as to the various methods of preparation or has stimulated more effort to secure proper apparatus for making it. The dealers attribute the popularity of many of the newer coffee machines to the restaurants and cafes. The man who partakes his coffee to aid his eating in a restaurant immediately inquires as to the sort of machine used and orders an individual coffee pot of similar nature for himself. And enthusiastic coffee drinkers often try the new apparatus that comes out in the hope of discovering some valuable wrinkles for themselves and friends.—New York Sun.

STRANGE TEST OF INNOCENCE.

"A strange way of testing the innocence of an accused person is employed in India," said a traveler who lately returned from Madras. They haul the man up and give him a mouthful of dry rice to chew. Dry rice takes a deal of chewing to get it masticated into a glutinous mass, like gum, and that is the condition that the accused is required to get it into within ten minutes. If you are calm and not afraid, you succeed, but if you are nervous and scared you fail. For it seems that fear has a strong effect upon the salivary glands. It prevents them from secreting saliva. The mouth of a badly-frightened person is always dry as a bone. It requires a tremendous flow of saliva to chew dry rice, and therefore the scared prisoner inevitably fails in this test."

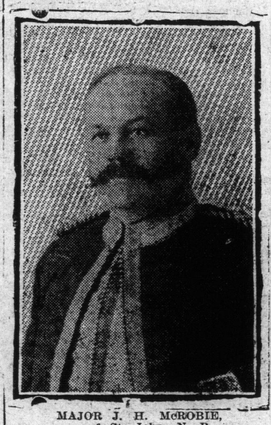
RIGHT HON. LORD BRASSEY, K. C. B., President of the Congress.

The Revolution in Chemistry.

Few things give one a higher idea of the powers of the human mind than its ability, as shown in the speculation of Sir Oliver Lodge's recent Romanes lecture, to search into the ultimate secrets of the universe. Nothing is too great, nothing too small, for the measuring rod of modern science. On the one hand we have astronomy, which revels in magnificent distances, and tells us the most wonderful things about what is going on in a system like that of the new star in Perseus, so far away that light, travelling from the sun in seven and a half minutes, has taken three centuries to reach us and speak of the cataclysm which befell this Nova while the Spanish Armada was sailing.

On the other hand, we have the new chemistry which deals with the infinitely little, and investigates the inexpressibly tiny constituents that make up ordinary matter. Lord Kelvin gave us a popular idea of the size of atoms when he said that if a single drop of rain could be magnified up to the size of the whole earth we might reasonably expect to find that the atoms which composed it would be somewhere beetween cricket balls and footballs in size.

Now we are offered a still further advance in our conceptions by the suggestion that the ions, or electrically-charged particles of which it is now believed that these atoms are built up,



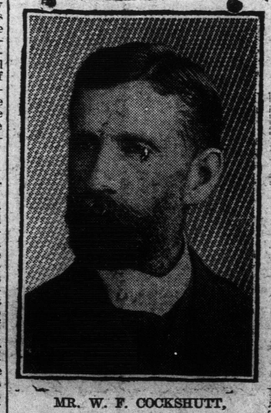
MAJOR J. H. McROBIE, of St. John, N. B.

are so much thinier that, if an atom were in turn magnified to the size of an ordinary church, its ions would be about as large as this full-stop.

A FASCINATING THEORY.

The mind pauses at the conception of such littleness, which it is quite important to conceive, and can only speak of as infinite. But our men of science —Sir Oliver Lodge, Sir William Crookes, Professors J. J. Thomson and Larmor, and a number of less famous workers—seem to be well on the way to construct a sound theory of the motions and behavior of these ions and atoms, based on a study of the way in which matter behaves when it is submitted to the tests of the physical or chemical laboratory.

In the lecture already mentioned, Sir



MR. W. F. COCKSHUTT, of the Toronto Board of Trade.

Oliver Lodge adumbrates a very fascinating theory, to the effect that, when we come to know enough about it, molecular chemistry may turn out to be only a kind of astronomy, concerned like that queen of sciences with the motions of suns and planets and the evolution or decay of stellar systems. It is not very easy to make the possibility of this clear to the unscientific mind, but the attempt is worth while, though of course it must be understood that the whole thing is at present only a "working hypothesis"—in other words, the most plausible and convenient representation of a remarkable series of facts.

Dalton's original atomic theory, which has been used by chemists for the last century as a similarly convenient representation of the facts hitherto noticed, was based upon observation of the way in which various so-called elements combined with one another. It was found that they always did so in definite proportions. If you take two ounces of the gas hydrogen, for instance, it is found that it must always be mixed with sixteen ounces of oxygon to explode and form eighteen ounces of water; if more oxygen is taken the residue is left unaffected; if less, then some of the hydrogen remains uncombined. A similar relation holds good between all elements which we can get to form compounds.

THE MIGHTY ATOM AGAIN.

From this great fact Dalton deduced his famous law of combining weights, and his still more famous atomic theory. This assumes that the reason why two or more elements always combine in the same proportions is that they consist of atoms—things which can no longer be divided—each of which is supposed to be exactly like all the other atoms of the same substance, and to have a constant definite weight.

It was a good enough theory for chemists to work with, and has served their purpose for a century. Now various trains of reasoning, depending mostly upon the study of electricity, have led us a step further, and we are told that we must no longer regard the atom as the ultimate basis of matter. Indeed, it is an atom no longer—not a single indivisible unit, but a congeries of moving and warring bodies.

The existence of bodies smaller than atoms—corpuscles, or ions, or whatever they are to be called—has long been suspected. Excessively small as the atom is, we can measure its approximate size by mathematical reasoning from observed facts, chiefly connected with the action of light and other forms of radiation. Now some recent researches on obscure forms of radiation, such as that which led to the discovery of radium and its remarkable properties, have indicated the necessary existence of bodies that must be far smaller than the atom can possibly be.

It has been calculated, for instance, that the efflux of solid matter which goes on at the surface of a particle of radium salt is such that one grain would be lost from each square inch of its surface in about ten thousand million years. And yet the efflux is so constant that its stream can conduct electricity; when the radiation falls upon an electroscope it discharges it with considerable speed.

Now, the atom is very, very small, but it cannot be so small as to account for a loss of substance at this rate—which reminds one of the granite mountain in the fairy tale from which a bird removed one grain once in a thousand years, though the whole mountain would be worn away before the first second of eternity had passed. Other researches too subtle or complicated to describe have led to a similar conclusion, which Professor J. J. Thomson has elaborated with wonderful skill and mathematical ingenuity.

WHAT IS ELECTRICITY?

Further, a remarkable assumption has been made with regard to the nature of electricity. It is now becoming exceedingly probable that the troublesome question, "What is electricity?" will be answered by saying that it is matter, or that matter is electricity—or, rather, that the two concepts which bear these names are but manifestations of the same root-stuff in different conditions.

The important property which matter and electricity have in common is that of inertia—the power, that is, of preserving in a state of motion until some external force comes in to change it—and it is simpler to suppose that the common property is due to community of nature than to hold that so inexplicable a property should have been independently developed by two distinct substances.

The new chemistry, then, suggests that matter and electricity are one and the same; that what we call atoms consist of systems of far tinier bodies, the ions, or electrons, which are simply charges of electricity. Sir Oliver Lodge suggests that the typical atom may be very similar to a stellar system, consisting of a definite number of these electrons moving in rapid orbits just as the planets move round the sun—though no atom is likely to be so simple as our puny system. The simplest atom, that of hydrogen, is believed to consist of about seven hundred electrons in regular obital motion, under laws closely akin to those which keep the earth in its course round the sun.

The electrons are assumed to be all exactly alike, so that an oxygen atom would consist of sixteen times as many, a gold atom of 196 times as many, and so forth. The chief fascination of this theory to an outsider, lies in its reduction of all matter to modifications of one original substance—probably the same as what we call electricity, which in its turn may be explained by such a theory as that epoch-making speculation of Professor Osborne Reynolds. If that is so, the old alchemists were right after all, and there is no reason in the nature of things why we should not one day transmute lead into gold by a suitable rearrangement of its electrons.

A DIZZY SPECULATION.

That, of course, is a mere dream. We may know all about the starry dance of the electrons without being able to interfere with their motions. At present the theory is merely in the incheate stage, and it will need much experiment and the powers of our greatest mathematicians to work it out.

One need only call attention to the singular thoughts which it raises as to the nature of the universe. If chemistry is the astronomy of the minute, is it not possible that astronomy is the chemistry of what we call the gigantic, that our earth and all its sister planets are but the electrons which constitute the atoms of a higher universe, and that we live, so to speak, in some speck of dust which worries a careful housewife in the world next above us? But the mind cannot grapple with thoughts of such magnitude, and we may be content with this hasty glance at a wonderful speculation.

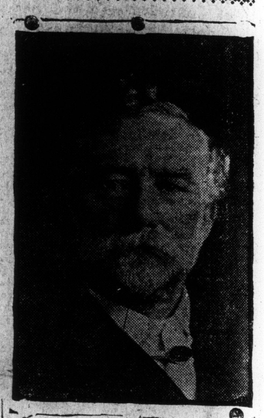
W. E. GARRETT FISHER.

PROTECTION AND WAGES.

In view of the fiscal question at present before the public of Great Britain, the report of the Chamber of Commerce of Essen, just published, is of interest, bearing as it does upon the problem so much debated of the influence of protective tariffs on the rise and fall of wages. The report shows that in 1871, the daily wages of workmen in Krupp's establishment were three marks, three pfenning, and in 1875 three marks, eighty-nine pfenning; and they sank till 1879, they were then three marks, two pfenning. Then, after Germany's conversion to protection in 1879, wages rose steadily. In 1882 they were three marks, fifty-seven pfenning; in 1888, three marks, seventy-one pfenning, rising to four marks, six pfenning in 1892. In 1895, after a slight depression, they were four marks ten pfenning, and in 1900 four marks 78 pfenning. In the next two years wages fell slightly owing to depression in trade.

The argument set forth in the report is that during the free trade period 1871 to 1879, wages were practically stationary, whereas in the protectionist period they were showing at 1900 a rise of 58 per cent. on 1871. This is declared to be more noteworthy, as the seventies were good business years, yet no rise of wages took place.

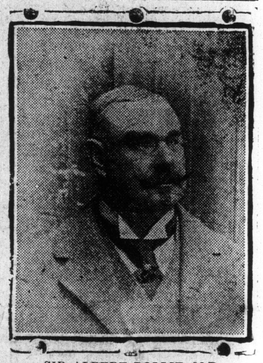
Dealing with the contention that in the same period the price of food rose proportionately, the report announced the following facts: From 1871 to 1902, of the chief articles of food consumed by workmen, bacon rose 27 per cent., veal 21 per cent., and beef 5 per cent., whereas black bread was 20 per cent. and potatoes were 29 per cent. cheaper. This is taken as proving that wages under protection rose considerably more than the price of food, and that therefore it is erroneous to contend that protective tariffs have materially increased the price of food.



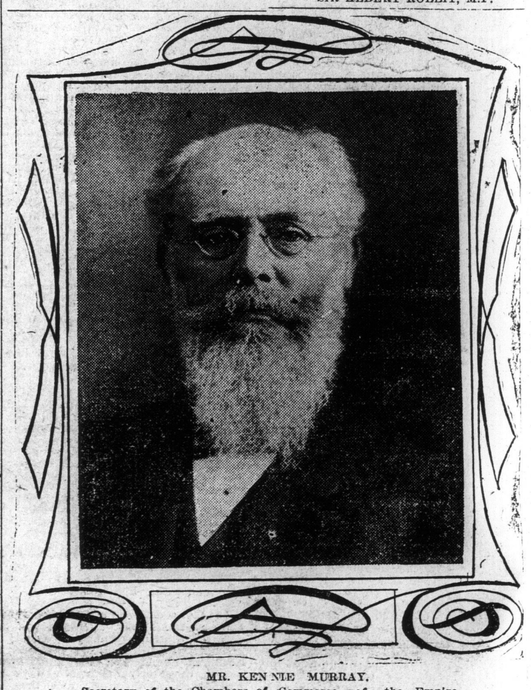
MR. JAMES HARGREAVES, Lancashire.

THE SIMPLON TUNNEL.

The traffic through Switzerland to the St. Gothard does not benefit in any way the French speaking Swiss cantons, and these—Geneva, Vaud, Valais, Neuchatel, and Fribourg—have been steadily working for years to secure a rapid means of transit to Italy. The Jura-Simplon Railway Company—a company formed in 1889 of the Suisse Occidentale and the Jura-Berne-Lucerne Railways, owning about 625 miles of line, or about one-third of the whole of the Swiss system—had for several years also been eagerly seeking to bring on their own lines a good proportion of the trans-continental traffic from France and England; and while the Swiss government was trying to win financial co-operation from the Italian government, the railway company had fully examined and agreed to design a tunnel proposed by a contractor company, Messrs. Brandt, Brandau & Co., and the total amount

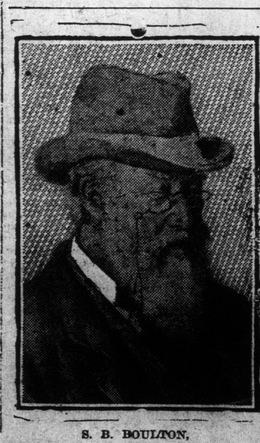


SIR ALBERT ROLLIT, M.P.



MR. KENNIE MURRAY, Secretary of the Chambers of Commerce of the Empire.

of the contract was estimated to reach £2,800,000. The financial operations were completed in the commencement June, 1898, when the Jura-Simplon Railway Company owned a sum of £3,040,000 with which to cover the cost of the undertaking. In July, 1898, the Swiss and Italian governments agreed that work should be proceeded with and on August 1, 1898, construction was commenced. It was to be completed in five years and eight months or on May 1, 1904, but it is doubtful whether the boring will be finished by that date. The average rate of advancement per day since the commencement, and counting both sides, has been 9.40 metres (31 feet 6 in.) Towards the end of 1901 an accident occurred on the Italian side: the work having been proceeding through very hard granite gniess, and this suddenly gave place to a bed of rotten calcareous stone and slate, which afforded passage to torrents of water, resulting in the inundation of the workings. Operations had to be discontinued for a period. Fresh sources had to be discovered, and the water deviated. This meant a loss of time of about three months.—Traction and Transmission.



S. B. BOULTON, Representing London Chamber of Commerce.

PULLING A FISH'S TEETH.

Extracting a fish's teeth is rather a novelty in dental operations, but, nevertheless, it has been successfully accomplished in the United States.

A big California trout in an aquarium persistently chased and bit his companions, so his owner seized the fish and pulled out his teeth with a pair of pincers.

What the fish was doing meanwhile the report does not say, but concludes with the fact that the fish was none the worse in health and has now settled down as a peaceful member of the aquarium.