

as he suggests, though perhaps less convenient term, *os furculatorium*.

R. W. SHUFELDT

Fort Wingate, New Mexico, October 8

Metric or English Measures?

WOULD any of your readers have the great kindness to give me their opinion on the following question?

In writing a school-book in which such branches of physics as dynamics and heat are to be treated in a very elementary but exact way, would it be best to use the metric system or the English system of weights and measures?

Personally, I am strongly inclined to take the former course; it seems to me that as soon as a boy's scientific education begins he should make acquaintance with the units of measurement now generally adopted by scientific men throughout the world.

E. R. P.

CHARLES ROBIN

ON the 6th of last month died in Josseron (Department l'Ain) Charles Robin, sixty-four years old. He was one of the few men in Europe who may be justly considered the founders of modern histology. Although some of his views, as, for instance, on the formation of cells out of a blastema, are now only of historical interest, there remain a considerable number of valuable facts which he has contributed to histology, anatomy, and zoology. A chair of General Anatomy was created for him in 1862 in the Paris Faculty of Medicine, and here he always collected round him a number of ardent students who, under his direction and imbued with his ideas, did excellent work in histology. He was, in fact, until a few years back (until Ranvier) the only exponent of and original worker in histology in France. There is hardly a chapter in this science to which he has not largely contributed. His chief works are "The Natural History of Vegetable Parasites in Man and Animals"; "On the Tissues and Secretions"; and his many articles in the "Dictionnaire Encyclopédique des Sciences Médicales."

THE LIVERPOOL INTERNATIONAL EXHIBITION

THE credit of the inception of the idea of the practicability of carrying on an International Exhibition at Liverpool appears to be due to Alderman David Radcliffe, the present Mayor of the City, who laid it before Lord Derby, who at once became the first guarantor of a fund which now exceeds 60,000*l*. The support this movement has now secured in England and on the Continent renders its success assured.

It is a matter of surprise that no International Exhibition has ever yet taken place in the North of England, when the fact is remembered, commented on by Lord Derby at the last annual banquet given to him by the Mayor of Liverpool, that the inhabitants of that City and the district lying within a radius of fifty miles of it are as numerous as those of the City of London, and the greater London, which lies within a radius of fifty miles of St. Paul's. The value of exhibitions it is difficult to over-estimate. Visitors however unintelligent must of necessity learn something of the processes and methods carried out by their countrymen in the arts and manufactures, while the exhibitors increase their technical grasp, and get their thoughts removed from stereotyped grooves by the inspection of products from countries where workmen obtain so much larger a share of technical education, based on practical science, than is accorded by the education department of this country.

Placed as is Britain, as it were between Europe and America, an Exhibition of Navigation and Travel

would at all times appear to be singularly appropriate; but this has still greater significance at Liverpool, itself the second, if not the first, seaport of the world. This is rendered still more important from the evident care evinced by the projectors that the Exhibition should be on a scientific basis, and that it should be the means of spreading accurate scientific and technical knowledge in the construction and manipulation of all the appliances of locomotion, travel, and transport by sea and land, by rivers, by air, or through cultivated lands, or across the desert. In addition to this it is proposed, should, as is hoped, a surplus be realised at the end of the Exhibition, that it be devoted to the foundation of a school of technical education, to be called after the late Prince Leopold, whose last public appearance in Liverpool was marked by special advocacy of the claims of technical education.

Commerce and manufactures are also to be represented, including all substances used in the arts derived from animals, from vegetables, and from metallic and non-metallic minerals.

The Corporation of Liverpool has granted a site of 35 acres near the Edge Hill Station of the London and North-Western Railway; fountains, bands, and electric illuminated trees are to reproduce the features of South Kensington, and the scheme is not only supported by the cities of the north, but by Paris, Vienna, and Berlin, while Belgium, Sweden, and other countries, and the Isle of Man, are applying for courts. The Exhibition will be opened in May next year, and continue open for six months.

C. E. DE RANCE

DR. GOULD'S WORK IN THE ARGENTINE REPUBLIC

WE have from time to time during the last fifteen years recorded the progress made by Dr. Gould in his stupendous work on the southern stars. He has now returned to the United States, and we are glad to be able to give an account of the reception he met with on his return. Rarely has such a reception been better deserved, and carried out as it was it did credit to science all the world over, as well as to the country and the man most closely interested.

A letter signed by upwards of eighty of the most prominent men in Boston awaited Dr. Gould's arrival, asking him to fix a date "when it will be agreeable for you to meet us at a dinner, that we may welcome you home."

Pursuant to arrangement a reception and dinner took place at the Hotel Vendôme, Boston, on the evening of May 6, 1885. The Hon. Leverett Saltonstall presided, and, after the banquet, arose to introduce the guest of the evening. The president referred to Dr. Gould's early career and his hard work:—"We have thus met," he said, "that we may extend to Dr. Gould our most cordial welcome, to show him our high respect for his character and attainments, to express to him our deep sympathy for all the severe trials he has been called upon to encounter, and to prove to him in every possible way how proud we are of his high fame, world-wide, as one of the greatest astronomers of this or any former age. . . ."

"When the opportunity presented itself for doing a far greater work than that, in my opinion, accomplished by any astronomer now living, and equalled in extent and importance by but few in any previous age, a work so vast in its design that its mere suggestion might well have staggered a much younger man, he already having passed what is considered the prime of life, courageously took the great step and exiled himself from home, conscious that it was a work which he could scarcely hope to live to complete. He buried himself in a country so far away and so little known that it might well have seemed another world, and with no hope of reward such as the world generally values for all the cause he loves with

such devotion—the cause of science. He sailed with his family for Buenos Aires, and there for fifteen years he has been searching the heavens by night, and making his calculations by day, till he has finished a complete catalogue of the stars of the southern hemisphere. And in this great work, the greatest perhaps ever known, an exile from home, almost alone and unaided, feeling that on the continuance of his life and strength depended its accomplishment, he braved and endured all with a courage and devotion worthy of our highest admiration.”

In reply to the toast of his health, Dr. Gould spoke as follows:—

MY DEAR FRIENDS,—Would that I knew how to give some fit expression to my deep sense of your kindness, and to my gratitude for this delightful manifestation of your approval and regard. No man could fail to be profoundly moved, or to indulge a pardonable pride, under such circumstances; and it is only natural that one, who is perhaps too sensitive to the opinions of those whom he loves and esteems, should find it difficult to control his emotions or to give full utterance to his thanks.

If the pursuance of my appointed task has entailed sacrifices, the chief among them has certainly been the long separation from the friends at home, whose companionship, encouragement and sympathy were always my greatest source of happiness, outside the narrow limits of domestic life. But there has been something more than mere separation; for, however cherished and abiding may be our memory in the hearts of the friends spared to us for that reunion to which we are always yearningly looking forward, there still remains the consciousness that we have ceased to form an element in their lives, and that all human associations become dulled by the lapse of time. Had I been able to foresee this welcome from those to whom I am most closely bound by ties of affection, sympathy and respect, the anticipation would have lightened many a weary hour, and given new strength when courage threatened to fail.

You, my dear classmates of forty years ago, like the other friends around us here, need not be reminded that public speaking was never comprised in the short list of my attainments. It will not surprise you that fifteen years' disuse of our native language should have given me no greater command of it, nor that an unremitting employment of telescopes and logarithm-tables, should have made it no easier to face a large assemblage, even though composed only of kind and indulgent friends. All that I can do is to offer to all of you my overflowing thanks, and to assure you that the long severance from friends and country, now at last ended, shall give greater earnestness to my resolve to atone in the future, as well as may be, for the past neglect of my duties to them and to this community, in which I will never abdicate my priceless birthright.

As you have implied in your too flattering words, that incentive has never been wanting during my expatriation, which came from the consciousness that whatever it might be within my power to accomplish well, would be credited in part to our native land. It is a source of pride to the Argentines that their political organisation was modelled upon that of the United States—that their precedents in constitutional law are based upon the decisions of North American courts, and that the word “America” vibrates in their ears with the same melody we know so well. If a conquest from the realm of the unknown be made by American effort, they rejoice in it, before considering which is the hemisphere whence the soldiery came. And the success of any laudable effort emanating from this western hemisphere is doubly prized by them when the two Americas have united for its accomplishment.

Science knows no narrow bounds of nationality; yet who would be so cruel or so unwise as to censure, or attempt to weaken, the intense stimulus which is given by the hope that what honour may attach to a good work will be reflected upon one's own country? Does not a part of the world's tribute to a Franklin, Fulton, Bache, Henry, Agassiz, or Peirce—to an Irving, Bryant, Prescott, Motley, or Longfellow (I name only such as have left us)—belong to their country? And is it not a wholesome incentive to the labourer that he should feel that a portion of his reward will be assigned to his country, or even in a wider sense, to his own continent, when this has started late in the race, handicapped by the shortness of its history and the restrictions of its past opportunities?

From this point of view it may not be unseemly if I comply

with the request to relate briefly what has been attained at Córdoba in these fourteen and a half years, chiefly by North Americans, labouring in the service of the Argentine nation, which has never failed to afford them all needful support and encouragement.

The undertaking began, as you know, with the project of a private astronomical expedition, for which my friends in Boston and its vicinity had promised the pecuniary means. The selection of Córdoba, as an especially desirable place, was chiefly due to our lamented countryman, Gilliss, whose astronomical mission to Santiago de Chile had resulted in extensive and valuable observations of southern stars, and in the establishment of a national observatory, while it had enabled him to form a sound judgment as to the relative advantages of different points in South America for astronomical purposes, notwithstanding the total want of trustworthy meteorological data. This choice of place was confirmed by the counsel of the Argentine Minister to this country. That minister was Sarmiento, a man who needs no encomium here, for, during his brief residence in the United States, he gained an exceptional number of friends and admirers. He transmitted to his Government, then under the presidency of Gen. Mitre, my application for certain privileges and assurances, all of which were at once cordially conceded; but his interest in the plan became furthermore so great that when, soon afterwards, he was himself elected President, he obtained the assent of the Argentine Congress to the establishment of a national observatory, and wrote asking me to change my plans accordingly. The official invitation was sent in due time by the Minister of Public Instruction, Dr. Avellaneda. The Government assumed the expense of the instruments and equipments already bespoken, and authorised the engagement of the requisite assistants.

In 1874 Dr. Avellaneda succeeded Sarmiento in the presidency, and in 1880 he was himself succeeded by Gen. Roca. Thus, four successive administrations have encouraged and sustained the undertaking; and, notwithstanding the high political excitement which often prevails, and might easily have disinclined the members of any one party to give cordial aid to institutions established or fostered by its opponents, there has never been wanting a spirit of decided friendliness to the Observatory and to the scientific interests which have been developed under its auspices. No president of the nation, and no minister of the department under which the Observatory is placed, has failed to give strong practical evidence of his good will; there has been none of them to whom I do not owe a debt of gratitude; I have never made an official request which has not been granted, and almost always in such a way as to enhance the favour. And, just as the official founders of the Observatory met us with a cordial welcome on our arrival, so the Government of to-day has overwhelmed me with kindness and tokens of regard on my departure. On the very last evening before embarking—when it was my privilege to receive the farewells of a crowded assemblage in the halls of the Argentine Geographical Institute, and to hear words of sympathy and commendation from the lips of Gen. Sarmiento, my earliest Argentine friend, speaking in behalf of that Society—I replied, in the few words which alone were possible at the time, but with all sincerity and truthfulness, as follows:—

“It was you, sir, who provided the opportunity for which I was yearning; it was the Argentine Republic which made it easy for me to avail myself of it; it has been the National Government which, in its various phases, and under so many different administrations, always provided all needful means and resources; it is the Argentine people which has accompanied me in my tasks, giving support by their sympathy and incentive by their kindness.”

The original purpose of the expedition was to make a thorough survey of the southern heavens by means of observations in zones between the parallel of 30° and the polar circle; but the plan grew under the influence of circumstances, until the scrutiny comprised the whole region from the tropic to within 10° of the pole—somewhat more than 57° in width, instead of 37°. Although it was no part of the original design to perform all the numerical computations, and still less to bring the results into the form of a finished catalogue, it has been my exceptional privilege, unique in astronomical history so far as I am aware, to enjoy the means and opportunity for personally supervising all that vast labour, and to see the results published in their definite, permanent form. Of course this has required time. The three years which I had purposed devoting to the less

complete work have been drawn out to nearly fifteen; and you will comprehend what that implies for one who loves the friends of his youth, his kindred, and his country. Yet even here there has been consolation. For, while the work has demanded all that period, it did not absorb the whole time, and opportunity was left for other studies. Among the astronomical ones it has been possible to examine all the stars as bright as the seventh magnitude, up to 10° of north declination, for careful estimates of their respective brilliancy, and to reform the arrangement and boundaries of the southern constellations. Also to carry out the observations and computations for another stellar catalogue, more precise than that of the zones, and extending over the whole southern hemisphere. The total number of stars in this catalogue is less than in the other; but that of the observations is greater, since each star has been observed several times, as well as with greater precision. This catalogue, too, is at last finished and in the hands of the printer, and thus it is that I am once more at home with you, my cherished friends.

I am hopeful that the data now collected may throw some additional light upon the great problem of the distribution of the stars in space. Yet, even should these prove insufficient, there is reason to believe that the new labours, already begun by my successor, Dr. Thome, who has been connected with the observatory from the very first, will provide whatever additional information may be needful for the purpose. Among the other researches which have gone forward, while the preparation of the zone-catalogue dragged its slow length along, has been a study of the meteorology of the country. The absolute lack of information on the subject had forced itself unpleasantly upon my notice when endeavouring to select the most suitable place for the observatory; and, as it would have been disgraceful for any scientific inquirer to reside in the country without trying to supply the want in some degree, I succeeded in enlisting the aid of various educated men and women in different parts of the country and adjacent ones. The Government and Congress acceded to my recommendation that a modest sum should be annually appropriated for the purchase of barometers, thermometers, rain-gauges, &c., to be lent to volunteer observers, and for arranging, computing, and publishing the results. In this way was organised, in 1872, the Argentine Meteorological Office, which has established no less than fifty-two stations, scattered from the Andes to the Atlantic, and from Bolivia to Tierra del Fuego. At the end of the year 1884 there were already twenty-three points at which the observations had been continuously made, three times a day, for at least four years, and sixteen others at which they had already been continued for more than two years. These have provided the necessary data for constructing the isothermal lines, with tolerable precision, for all of South America from the torrid zone to Cape Horn. Some little has also been accomplished in determining local constants of terrestrial magnetism; and our determinations of geographical position have nearly kept pace with the extension of the telegraph wires. The beats of the Cordoba clock have been heard and automatically recorded amid the plash both of Atlantic and Pacific waves. And the series of longitude determinations made by the United States naval expeditions, between Buenos Aires and Europe on the one side, under Capt. Green, and between the United States and Valparaiso under Capt. Davis on the other, give, when combined with the two South American measurements, values for the longitude of Cordoba, which differ only by one-sixth of a second—this being the total amount of the aggregate errors of the several determinations in a series which, passing through Brazil, the Cape Verde Islands, Madeira, Portugal, England, Ireland, Newfoundland, the United States, Central America, and down the coasts of Ecuador, Peru, and Chile, completes the full circuit at Cordoba again.

But I will not descant upon collateral matters, nor convert this gathering of friends into an astronomical lecture-room. There are but two points more that I wish to mention.

One is, that I cherish a hope that our sojourn at Cordoba may hereafter be considered as marking an epoch in a new method of astronomical observation, namely, the photographic. The inception and introduction of this method belongs to our countryman, Mr. Rutherford; and it was only through his friendly aid in several ways that I was enabled to give it a larger scope, in spite of many obstacles. Now I can report that every important cluster of stars in the southern hemisphere has been repeatedly photographed at Cordoba with a precision of definition in the

stellar images which permits accurate microscopic measurement; that these measurements are at present actively going on, and that the Argentine Government has undertaken to provide the means for their continuance under my supervision. It may be that I over-estimate the importance of this new method; but I confess that my expectations are very high. Another year ought to show us whether they are exaggerated or not.

The other point is, that a very large share of the merit which you so liberally attribute to me belongs to the faithful staff of fellow workers, with whose assistance I have been singularly favoured. Their unselfish devotion to the great undertakings in which they took part, their loyalty, trustworthiness and ability, have, in the great majority of cases, been beyond all praise. Happily, their faithful and inestimable services to science are placed on durable record; and yet unborn astronomers will know, at least in part, how great have been their deserts. The senior of them, Dr. John M. Thome, whose services began in 1870, before we started southward, is now director of the Observatory, where he has begun a new and important work, which will do honour to him and to the institution. Another, Mr. Walter G. Davis, who has laboured most earnestly and efficiently for eight and a half years, is now director of the Meteorological Office, which is assuming large proportions, and under which he is now organising at Cordoba a meteorological station of the highest class. One noble young man, Mr. Stevens, was summoned, without an instant's warning, to a higher reward than earth could give, leaving no memories behind him other than of affection, admiration, and respect. It was a sore loss for us, and for the bereaved parents in New Hampshire, to whom he was their only earthly stay and staff. Had he lived, his friends and country would have had abundant cause for pride in him. As it is, the number of those who love and honour his memory may perhaps be smaller, but their pride and admiration are no less, than had they seen the full harvest instead of the rich promise only. Mr. Bachmann, a native of Austria, who laboured with us for more than ten years, is now at the head of the Argentine Naval Academy in Buenos Aires, with more than three hundred pupils and an elegant little observatory, where he finds repose from administrative cares, in astronomical work analogous to that to which he gave his energies at Cordoba. He has already undertaken some longitude-determinations and arranged a time-ball, which is probably by this time giving daily signals by which the shipping in the outer roads, twelve miles away, may correct and rate their chronometers.

I have spoken longer than I intended, but will make no apologies, for I know your friendly indulgence. It only remains to say, for these Argentine scientific institutions, that I believe their success is now assured. They will enter upon new and enlarged fields of usefulness, as indeed they ought, for the world moves. And for myself, that the remembrance of this occasion and of your goodness will be a source of pride to me through life, and to my children afterwards.

Hardly had the sound of Dr. Gould's voice died away when he was the recipient of a splendid ovation, the guests of the evening seeming to vie with each other in a generous rivalry as to which should outdo the other in rendering honour to the distinguished guest of the evening.

The chairman, in introducing Dr. Oliver Wendell Holmes, pleasantly referred to him as not a small star, but one of the first magnitude. Dr. Holmes received just such a welcome as he is entitled to, and which is always accorded him, and in response thereto read the following poem, which was received with round after round of applause:—

A WELCOME TO DR. BENJAMIN APTHORP GOULD

Once more Orion and the sister Seven
Look on thee from the skies that hailed thy birth—
How shall we welcome thee, whose home was Heaven,
From thy celestial wanderings back to earth?

Science has kept her midnight taper burning
To greet thy coming with its vestal flame:
Friendship has murmured, "When art thou returning?"
"Not yet! Not yet!" the answering message came.

Thine was unstinted zeal, unchilled devotion,
While the blue realm had kingdoms to explore—
Patience, like his who ploughed the unfurrowed ocean,
Till o'er its margin loomed San Salvador.

Through the long nights I see thee ever waking,
Thy footstool earth, thy roof the hemisphere,
While with thy griefs our weaker hearts are aching,
Firm as thine equatorial's rock-based pier.

The souls that voyaged the azure depths before thee
Watch with thy tireless vigils, all unseen—
Tycho and Kepler bend benignant o'er thee,
And with his toy-like tube the Florentine—

He at whose word the orb that bore him shivered
To find her central sovereignty disowned,
While the wan lips of priest and pontiff quivered,
Their jargon stilled, their Baal disenthroned.

Flamsteed and Newton look with brows unclouded,
Their strife forgotten with its faded scars—
(Titans, who found the world of space too crowded
To walk in peace among its myriad stars).

All cluster round thee—seers of earliest ages,
Persians, Ionians, Mizraim's learned kings,
From the dim days of Shinar's hoary sages
To his who weighed the planet's fluid rings.

And we, for whom the northern heavens are lighted,
For whom the storm has passed, the sun has smiled,
Our clouds all scattered, all our stars united,
We claim thee, clasp thee, like a long-lost child.

Fresh from the spangled vault's o'erarching splendour,
Thy lonely pillar, thy revolving dome,
In heartfelt accents, proud, rejoicing, tender,
We bid thee welcome to thine earthly home.

The Rev. James Freeman Clarke in saying a word in honour of "our friend, the eminent astronomer, who is our guest to-night," remarked that—

"We are on the verge of still greater discoveries than any yet made, and our own country is prepared to do its full part in the work. When the Russian Government wishes for a better telescope than any now in Europe, it sends to Cambridgeport to get it. Mr. Rutherford invents an instrument which gives us the best photographs of the moon ever made. The Washington Observatory discovers the two satellites of Mars. Prof. Langley, in the midst of Pittsburg smoke, has made observations with instruments of his own invention, with an account of which he is now arousing great interest among the men of science of England. Dr. Peters, of Clinton, N. Y., and Prof. Watson, of Ann Arbor, have been the chief discoverers of the asteroids. Prof. Young and Harkness first gave, in 1869, the true theory of the solar corona. The two Bonds, at the Cambridge Observatory, have taken rank among the chief astronomers of our time. Our friend, Prof. Pickering, amid all his other labours, has invented instruments of precision by which the light of the stars can be measured with accuracy. And now we welcome home Dr. Gould, who has given long years of labour in a far-off land, away from home and friends, to complete his great work of a catalogue of the southern stars. To him and to his noble wife who shared his labours, sustained his courage, was his companion in his sacrifices, we give our thanks and our love to-night. We sympathise with him in that great loss, and we thank God with him that he and she had this great opportunity, and that they were able to share together, side by side, the consciousness of doing a work which will never be forgotten."

Other tributes were paid to the work of Dr. Gould by Prof. Lovering, of Harvard, Prof. Pickering, of Harvard Observatory, Dr. William Everett, Prof. W. A. Rogers, of Harvard. The last-named said that there is no exaggeration in the statement that the work which Dr. Gould has accomplished during the past thirteen years is without a parallel in the annals of astronomy.

"First of all it needs to be said that in 1870 there was no Cordoba Observatory. I suspect, also, that it must be said that astronomers had at that time little faith in the fulfilment of plans

which required that the Government of a South American Republic should persistently pursue, for a series of years, that wise, enlightened and liberal policy which has made the Argentine Republic a conspicuous example of the way in which a government may foster learning and research with the most encouraging results. I do not know of a better way to give a clear idea of the magnitude of this work than by comparing it with similar work done previous to 1872. There are in the northern heavens, between the north pole and a little distance below the equator, about 4500 stars visible to the naked eye. These stars have been observed with more or less regularity at various observatories since about 1750. Within the same limits there are about 95,000 stars as bright or brighter than the ninth magnitude, which are usually observed in narrow belts or zones, and such stars are usually referred to as zone stars. The bright stars are common to nearly all general catalogues, but the positions of the fainter stars depend for the most part on two or three separate observations. Dr. Gould has formed two catalogues since 1872—a general catalogue of stars extending to the south pole, containing 34,000 stars, and a catalogue of zone stars, numbering 73,000. These two catalogues represent about 250,000 separate observations. It is stated in one of the printed volumes that the chronographic register of the transits, the pointing of the telescope for declination, and the estimation of the magnitude have all been done by Dr. Gould personally. The distinct and separate observations involved in this work must certainly exceed 1,000,000. I suppose there must be several gentlemen present who have a realising sense of what a million really means, but for myself I commonly say that it seems to me to be a very large number. Having made less than 50,000 observations during the time covered by Dr. Gould's observations, can you wonder that this work, which seems so far beyond the limit of human endurance, is at once my amazement, my admiration, and—I must add—my despair? The whole number of stars in the two Cordoba catalogues is nearly three times as great as in any single catalogue thus far constructed; and it must be remembered in this connection, that the great catalogues of Lalande, of Bessel, of Argelander, and of Schjellerup, represent the labours of a life-time. The total number of stars in all catalogues formed previous to 1870, is about 260,000 as against the 105,000 stars in the Cordoba catalogues. But there is another comparison which may be made, which will reveal yet more clearly, not only the magnitude of the work which Dr. Gould has now finished, but the intense energy with which it has been pushed to completion. Since 1869 a confederation of fourteen observatories, situated in different parts of the world, has been engaged in the accurate determinations of the positions of the 100,000 stars to the ninth magnitude, in the northern heavens. Up to 1882 a total of about 346,000 observations had been made. Considerable progress had been made in this work before Dr. Gould left this country for South America. His work, involving two-thirds as many observations as all others combined, is completed, and is all in the hands of the printer, while the actual formation of the catalogue to be issued under the direction of the *Astronomische Gesellschaft* can hardly be said to have been begun."

TELPHERAGE

ON Saturday, October 17, a special train from Victoria conveyed a party of about 200 guests, among whom were many leading electricians, engineers, and other well-known men of science, to Glynde, in Sussex, to witness the ceremony of the opening of the first telpher line erected in this country. The ceremony was performed by the Viscountess Hampden, and was of an exceedingly simple character; on lifting a small box containing a present which the Chairman of the Company invited her ladyship to accept, electric communication was instantly established between the dynamo in the engine-house and the telpher line, and a train loaded with clay at once began to move up an incline towards the Glynde Railway Station, amidst the applause of the assembled spectators. Whether this ceremony, which brought so many distinguished visitors down to Lord Hampden's estate on Saturday, is the inauguration of a great commercial enterprise is beyond our province to inquire; but it is unquestionable that the slight flash seen when Lady Hampden lifted the little box lying on the table in front