

[From the Scotsman.]

## SCIENCE—NEW AND BEAUTIFUL INVENTION.

When in London a few days ago, we learned that an eminent scientific gentleman is at present engaged in maturing an invention which promises to lead to the most astonishing results, and to exert a vast influence on the future progress of society. It is an *Electric Telegraph*, the powers of which as much surpass those of the common instrument bearing that name, as the art of painting surpasses the picture writing of the Mexicans. The Telegraph consists of five wires, enclosed in a sheath of India Rubber, which isolates them from each other, and protects them from the external air. A galvanic pile or trough is placed at the one end of the wires, which act upon needles at the other; and when any of the wires is put in communication with the trough, a motion is instantly produced in the needle at the other extremity, which motion ceases the moment the connection between the wire and the trough is suspended. The five wires may thus denote as many letters; and by binary or ternary combinations, the six-and-twenty letters of the alphabet may easily be represented.—By a simple mechanical contrivance, the communication between the wires and the trough may be established and stopped as the keys of a piano forte are touched by the hands of a practised musician, and the indications will be exhibited at the other end of the chain of wires as quickly as they can be read off. In the experiments already made, the chain of wires has been extended to a length of five miles, (by forming numerous coils within a limited surface;) and the two ends being placed near each other, it is found that the transmission of the electricity is, so far as the human senses can discern, *perfectly instantaneous*.—Little doubt is entertained that it may be conveyed over a hundred or a thousand miles with the same velocity; and the powers of the instrument promise to be as great as its action is rapid. It will not be confined, like the common telegraph, to the transmission of a few sentences or a short message, and this only in the daytime, in clear weather, and by repeated operations, each consuming a portion of time, for while it works by night or by day, it will convey intelligence with the speed of thought, and with such copiousness and ease, that a speech slowly spoken in London might be written down in Edinburgh, each sentence appearing on paper within a few minutes after it was uttered four hundred miles off! There may be practical difficulties attending its operation as yet unknown; but we speak here of what intelligent men acquainted with the experiments now in progress, look forward to as their probable result. If the promise these experiments hold out be realized, the discovery will be perhaps the grandest in the annals of the world; and its effects will be such as no efforts of the imagination can anticipate. A capital like London, with these electric nerves ramifying from it over the whole country, would be truly the *sensorium* of the empire. Men a thousand miles from each other would be enabled to confer as if they were in the same apartment, or to read each other's thoughts as if they were written in the sky. It would supersede the post, even though carried with railroad speed. Compared with it, the winged winds that "wait a sigh from Indus to the Pole," would be lazy messengers. In a despotic country, it would invest the Prince with something like omniscience; and in a free state, spread a thought or an impulse from one extremity to the other in an instant, and give the people a power of simultaneous action which would be irresistible. It is proper to add that the author must not be held answerable for our account of his invention, as we had no communication either with himself or any of his friends. Our informant, however, was a man of science.

## AGRICULTURAL.

## WHEAT.

## IMPORTANT DISCOVERY.

The New York Farmer publishes a letter from the Rev. Mr Colman, announcing an important discovery for the destruction of the grain fly.

The grain fly or insect, which, for a number of years, has been destructive to wheat in many parts of the country has this year extended its ravages, and excited, wherever he made his appearance, very serious alarm. An eminent farmer in the State of New York, wrote to me a year since, that he must give up the cultivation of wheat, as his crops were so much injured, that he hardly obtained a return equal to the seed sown. I knew another instance in the same State, where, though the straw was large, and the appearance promising, yet from 13 bushels sown, not more than 7 were obtained.

I have known other cases in which the whole field has been mowed and sold for litter; and in a recent excursion up the valley of the Connecticut, I have heard complaints every where, and hundreds of acres so destroyed, that the grain they would yield would hardly pay for reaping. Besides this, the same insect has destroyed many fields of rye in the same manner as the wheat, and has been found, this year in the oats: the progress of the insect has been about 40 miles a year; and a distinguished gentleman in Vermont, a practical & extensive farmer, remarked that he feared they would on this account be obliged to relinquish the cultivation of small grains.

The habits of the insects have not yet been accurately observed. I myself have not yet seen the fly, but have seen the worms in the kernel after the grain has been destroyed. He is represented as being a small reddish fly, which is seen hovering over the wheat field in immense numbers, while just in flower, and has been observed to light upon the kernel or bud, to ascend it, and then descending to the inner side, to deposit her egg between the stalk and the kernel, I purposely avoid the use of all scientific terms, wishing to be understood by common farmers. From this egg the worm is generated, which entirely consumes the grain while in the milk, leaving nothing but the husk, in which are found several yellow worms, about an eight of an inch in length. As this work of destruction is now completed, any further observations are of no importance, unless we can some way reach so as to destroy the germ of the insect. No preparation of the seed or ground has yet been found effectual to this end.

The continuance of the fly upon the grain is thought not to exceed three or four days, and they are seen in great numbers just at night. Some farmers have found late sowing a partial security, as the season for the flies has passed away before the wheat was in condition for their attack.

Spring wheat sown as late as the 7th and 8th of June, has been untouched, though in case of such very late sowing, the farmer will be fortunate if, in attempting to escape the fly, he does not get nipt by the frost.

I have now, however, the extraordinary happiness of announcing to the agricultural public, what there is reason to believe, will prove an effectual, as it is a reasonable and feasible preventive. Should it prove effectual, the remedy will be worth millions and millions of dollars to the country. It was communicated to me, on a late tour of agricultural inquiry and observation, by Dr Eliquent Lyman, of Lancaster, New Hampshire, an intelligent, enlightened, and practical farmer, whose crop of wheat usually averages from 25 to 30 bushels

per acre. It consists in the application of the fine slacked lime to the wheat, just at the time of its heading out and flowering, at the rate of about a peck to the acre.

It is sown broadcast upon the wheat while the dew is on, and the field is rendered white with it. The best mode of applying it is with the hand, and for the person who sows it, taking his proper breath or cast, to walk backwards, so that he may not cover himself with the lime. It must be sown while the wheat is wet, or the dew is on, and the philosophy of its application is very simple. The maggot of the fly is deposited between the grain and stock. It is, of course, an animal substance. The lime or alkali, mixed with the dew, is carried down upon, and neutralizes or destroys it. Dr Lyman has now tried this preventive three successive years, and has invariably as he assures me, saved his crops, while those of his neighbors have been destroyed.

I visited, at the same time, the field of a Mr Bellows, in the same town, who had been advised by Dr Lyman, to make his application.—The field consisted of several acres. He did it; it has proved successful, and what is strongly confirmatory of the value of this remedy, is the fact that a field of rye, belonging to Mr Billows, adjoining this wheat, and I think within the same inclosure, which was not limed, has been nearly destroyed by the fly.

These are certainly very important experiments, and I make no delay in presenting them to the public. Dr Lyman has promised me a more particular account of the experiment and result, and likewise Mr Bellows, which as soon as received, I shall be happy to communicate. I have received indirect and indefinite communications, that the same experiment has been successfully made in Gilmantown, N. H.; but I have not been able to obtain either the name or the details.

HENRY COLMAN.

Meadowbanks, May 10, 1837.

TO BE SOLD,  
AT PUBLIC AUCTION,

On the Cross Streets of Pictou, on Thursday the 21st September next, at one o'clock, p. m., under an order of His Excellency the Governor, and His Majesty's Council:

## TWO LOTS OF LAND,

Formerly the property of John McDonald (Sandy) of Merigomish, deceased, situate on the south side of the harbour of Merigomish, bounded on the east by the lands of Mrs McVicar, on the south by the lands of Sir Charles M. Wentworth, and on the west by the lands of William McDonald, and on the north by the harbour of Merigomish. Each lot contains

## 37½ ACRES, MORE OR LESS,

and of each at least ten acres are under cultivation. TERMS will be a deposit of ten per cent of the purchase money, at the time of the sale, and the remainder on the delivery of the Deeds.

THOMAS G. TAYLOR,  
Administrator.

Pictou, 18th August, 1837.

e-w

## VALUABLE WORKS.

A complete set of the  
BRIDGEWATER TREATISES,  
12 vols. bound in calf—containing

- CHALMERS—On the Wisdom and Goodness of God, as manifest in the adaptation of Nature to the Constitution of Man.  
KIDD—On the adaptation of External Nature to the Physical Condition of Man.  
WHEWELL—On Astronomy and General Physics, considered in reference to Natural Theology.  
BELL—On the human Hand, as evincing design.  
ROGET—On Animal and Vegetable Physiology.  
BUCKLAND—On Geology and Mineralogy.  
KIRBY—On the history, habits, and instincts of Animals.  
PROUT—On Chemistry, Meteorology, and the Function of Digestion.

JAMES DAWSON,