

impossible. Science is neither Jew nor Greek, she knows no bounds of nationality or language, and workers in her domains are "a band of brothers" aiming at one common object—the advancement of natural knowledge. The progress made by one soon becomes common to all, and the ground thus gained serves as a basis for the advance of others, so that every considerable achievement is the work not of one man but of many. A number of individuals are continually pressing to the same end, and the labour of the pioneer is continued and brought to its conclusion by other followers in the scientific field.

Curiously enough, the two discoveries we have mentioned both arose from the work of one man, whose name is scarcely known to the general public. Hertz unfortunately died before he could complete his investigations in either direction, but in both he was a pioneer. To him and to Lenard we owe the first proof that certain rays could pass through solid bodies impervious to ordinary light; while the later work on the transmission of electricity without wires has arisen directly from the researches of Hertz alone.

But there is a further connection between the two. The transmission of electrical waves, equally with the transmission of the X rays, is due to disturbances set up in the ether, that mysterious substance which fills all space and permeates all bodies, whatsoever their nature, and no matter how solid they may appear to be. What, then, is this wonderful ether? The reader may smile when we tell him that it is a hypothetical substance, of the actual existence of which we have no direct evidence. In fact, in his British Association address of 1894, Lord Salisbury dwelt at length upon our ignorance of its properties, upon our uncertainty even that such a thing exists. Had he studied the work of Hertz, he would have seen that his pessimism was without justice, for these researches, together with the modern work on the lines indicated, have thrown much light on the nature of the ether, and we may reasonably hope in the immediate future for a considerable increase in our knowledge. This hypothesis of ether waves—one of the most fruitful known to science—was brought forward in the first place to explain the phenomena of light, and it has adapted itself in the most wonderful way to explain the facts of the transmission, not of light only, but of all kinds of energy.

There is no doubt that wireless telegraphy, now in its infancy, has before it a great future. The pioneer work of Hertz has been ably carried on by a number of investigators, among whom we may mention Dr. Oliver Lodge, and, more especially, Signor Marconi. The researches of the latter are familiar to nearly everyone. Beginning with short distances, Marconi gradually improved his apparatus and methods till in March 28th of this year he succeeded in sending messages from the South Foreland to Wimereux, near Boulogne, a distance of 32 miles, and even this distance has been since exceeded. In fact, the distance appears to depend upon the height of the wire by which the electric vibrations are sent out into space. Other features which we owe to Marconi are the "coherer," by which the etheric waves are trapped and made to tell their story, and the method by which the receiver and transmitter are, as it were, tuned to each other, so that they are not affected by other instruments. To this latter end Marconi is still pursuing his investigations, and when more complete success is achieved, we may expect to see the method used in future wars. It was tried with satisfactory results in the last naval manoeuvres. For short distances, perhaps in time for long distances too, it should supersede the ordinary methods now in use. For light-houses and light-ships in their communication with the coast it will be invaluable, and already stations have been set up on many parts of the coast of England. But it would take long to tell of all the advantages which wireless telegraphy will give us—they must be present in the imagination of everyone.

Athletics.

THE STEEPLE CHASE.

The annual Steeple Chase was run on Wednesday, November 8th, over the same course as last year—i.e., start from west door of the College, northwest across Dovercourt and Rusholme Roads, north across Bloor street, northeast to Manchester avenue and then south down the ravine, finishing at the east end of the chapel. Nine men started with the following handicaps:—

Rolph	2m. 50s.
Lancefield	2m. 20s.
Bucke, Kidd	2m. 10s.
Strathy, Mockridge, Carman	1m. 50s.
Lucas	1m. 40s.
Spencer	Scratch.

The scratch man started at 3.10m. 40s. Lucas soon got the lead and kept it all the way, finishing at 3.36m. 39s. Spencer came in second at 3.37m. 1s., followed by Strathy at 3.37m. 30s. Mockridge was the next on hand exactly two minutes later, closely followed by Carman and Rolph.

Bucke, Kidd and Lancefield brought up the rear. The three prizemen are all old T.C.S. boys.

The following gentlemen kindly acted as officers:—

Starter.—Rev. W. H. White.

Timekeeper.—H. C. Simpson, Esq.

Judge at Finish.—A. H. Young, Esq.

The day was an ideal one for running, and though the course was rather heavy owing to the rain of the previous days, the time made was above the average of previous years.

Mr. Huntingford is as usual giving the first prize, and to him are due the hearty thanks and appreciation of the Athletic Association for his continued interest in this annual event. His prize this year is a set of handsome carvers, which will become the property of Lucas. Spencer deserves great credit for the splendid race he ran in spite of his heavy handicap. He has now run four times in the Steeple Chase, twice coming first, once second and once third.

TRINITY V. ST. MICHAEL'S COLLEGE.

Trinity defeated St. Michael's on the afternoon of Friday, November 10th by 10 to 1. St. Michael's won the toss and kicked down with the wind. During the first half, St. Michael's, by their heavy mass plays with long punts interspersed, seemed to be getting the best of the game, and they obtained a "rouge" on a long kick. In the second half Trinity began to get into the game. The Trinity halves, Strathy, Mockridge and Walker, made several good runs. Lucas played a splendid hard game at quarter; Burbidge, Code, Whittaker and Hewetson were always on the ball.

Trinity's first score was a try made by Code on a long kick by Strathy; it was not converted. Shortly afterwards Trotter went over the line for another try, which Lucas converted. A few minutes later the whistle blew and the score remained 10-1 in Trinity's favour.

For St. Michael's, Collins, Sheridan, Vissette and Crigan did far the best work. The teams:—

TRINITY.—*Back*.—Sawers; *Halves*.—Mockridge, Strathy, Walker; *Quarter*.—Lucas; *Scrimmage*.—Macdonald, Hewetson, Higginson; *Wings*.—Code, Richards, Whittaker, Burbidge, White, Lancefield, Trotter.

ST. MICHAEL'S.—*Back*.—Tickett; *Halves*.—Collins, Sheridan, Vissette; *Quarter*.—Crigan; *Scrimmage*.—Staley, Keys, Carter; *Wings*.—McAllister, Duggan, Carey, Bluett, Stormont, McGuire, Kelly.

SECOND YEAR V. FRESHMEN.

'01, 8; '02, 4.—The inter-year games began on Monday, November 6th, when the Second Year and Freshmen were given an opportunity to settle the little disagreements which