## The Light Game

Physics

A few years ago there appeared the following item in the afternoon edition of the *Physics Daily News*:

Waves and Corpuscles

In Hard Fought Game

Waves Lead, End of Third Quarter

(By Ray O. Light)

The big game opened with a kick-off by Galileo, veteran full-back of the "Waves." The ball was received by Isaac Newton, the strategic quarter of the "Corpuscles," who stiff-armed Huyghens, the giant tackle of the Waves, and carried the ball for a 45-yard gain. Then by a series of skillfully directed trick plays and forward passes, he led his team through to a touchdown at the end of the first quarter. La Grange failed to kick goal. Score, Corpuscles 6; Waves, 0.

Fresnel, captain of the Waves, elected to receive, and himself caught the ball. Tom Young organized an interference which completely overwhelmed the Corpuscles, and Fresnel ran the length of the field for a touchdown. The electric toe of Maxwell kicked the ball for a goal, giving Waves, 7; Corpuscles, 6.

At the beginning of the second half Maxwell was put in as quarter for the Waves, and with the help of the famous backfield, consisting of Hertz. Kelvin and Michelson, they had things their own way, scoring two touchdowns. Score at the end of the third quarter, Waves, 20; Corpuscles, 6.

As the last quarter opened, Planck, of the Corpuscles, made a long kick-off to Jeans, of the Waves, who was able to return the ball only a few yards. A forward pass was intercepted by Einstein, right end of the Corpuscles, who crossed the line with the velocity of light for a touchdown. The game during the next few minutes was very hard fought, neither side being able to make a first down. At the time this edition goes to press the Waves are in the lead by 7 points, but the Corpuscles seem to have the upper hand.

Prof. Arthur H. Compton brings the report up to date in the University of Chicago Magazine:

How, then, about our football game? Let us say that the strategy associated with the scattered X-rays has given the corpuscles another touchdown, and that Wilson, by finding the electrons recoiling from the scattered rays, has kicked a beautiful goal. The score thus stands: Waves, 20; Corpuscles, 20. At this

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of light on account of darkness.

stage the referee must call the game

## Westward Flight-Continued

large portions of the route they rarely if ever exist.

Now regard the poor west bound pilot.

With the above conditions reversed you find that the best he can expect is to increase his speed to 111 miles per hour and reach his destination in twenty-seven hours and again that he can hardly expect that assistance for more than five per cent. of the time. His worst condition shows that his speed may be reduced to 72 miles per hour for at least one quarter of the trip while if it holds for the whole trip, which is more than a possibility, he will not arrive at his destination until forty-one and twothird's hours have elapsed. So while his best expectations are only five hours better than his east bound competitors worst, his own worst conditions will require him to be in the air eighteen hours longer than the east bound plane or very nearly twice as

As if this is not bad enough, there is the fog hazard to be negotiated.

Of course, with fog on the course, and it can be expected from one-third to one-half of the time this month, both east and west bound will encounter it. But the east bound plane can at least maintain land contact through most of it and expect to be out of it in a couple of hours after leaving land, for the worst of the fog is near the coast of Nova Scotia and Newfoundland. They may then expect to approach the Irish coast in clear weather, for fog is expected only ten per cent. of the time there.

But the unfortunate west bound plane must approach a fog bank two or three hundred miles off the coast of America into which he must fly and grope for his destination for twelve or more hours. Remember that landmarks must be good to be recognized in a fog at a hundred miles an hour.

If you ever fly to Ireland it is to be recommended that you come home on a boat.

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## Volcano—Continued

The crater is constantly covered by mist, which may be in part steam. We only saw the jagged remnants of the cone twice, although it was so close to us and we had an unobstructed view.

Our position on the day of discovery was 300 miles from Quito. Most of our journey was through frightful trails in wet forests and on dangerous rivers. I believe the volcano could be reached from the west with much shorter distance if the Indians could be secured. But many torrential rivers are in the way.

We discovered also that the lowest sedimentary rocks in Ecuador are middle cretaceous and rest upon complicated old volcanic rocks, which we will describe after petrographic studies. An uncharted mountain mass on the equator in longitude 77 degrees 18 minutes west of Greenwich was revealed by our explorations. This is isolated and reaches elevations about 10,000 feet above the sea.

Another interesting feature of the exploration is the extension of volcanic centers from the high Andes to the lowlands east of the main range. About 25 miles south of El Reventador lies the great volcanic cone Sumaco, 12,750 feet above the sea, whose lavas we have recently found to be of feldspathoid type, the first known in Ecuador. We believe other centers will be found east of the Andes.

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