

sounds rather bad; but"—and he smiled confidently and made a large gesture with his open hands—"we'll make something new that you'll have to have." It was a fine confidence, and characteristic of the wonder-worker who had all his life been making "something new."

VERNON KELLOGG

NATIONAL RESEARCH COUNCIL,  
WASHINGTON

#### THE AURORAL DISPLAY OF SEPTEMBER 18

ON the evening of September 18, shortly after eleven o'clock and continuing until after twelve, there was the most unusual manifestation of aurora borealis at Fargo that we have ever witnessed. It consisted of an intensely luminous band some five degrees in width, extending through the zenith from one horizon to the other. The eastern end was some fifteen degrees south of east and the western end a corresponding distance north of west. The band was very uniform in width and intensity, though somewhat wider and more intense at the zenith. It had the general appearance of an intense shaft of light from a powerful searchlight, except for its direction and position. At the same time there was a considerable manifestation of aurora at the north, but between that and the band spoken of there was no illumination.

We have never had our attention called to a like phenomenon and we are wondering if it was observed at other points.

C. B. WALDRON

#### AURORAL DISPLAYS AND THE MAGNETIC NEEDLE

IN connection with the auroral displays of August 11 last, mentioned in these columns on August 22, it may be of interest to mention the behavior of the magnetic needle at Omaha at the time. The wire chief of the Western Union Telegraph Company called me by telephone that morning and said that there was very considerable and unusual trouble with earth currents over the wires between Chicago and Cheyenne as far south as Kansas City. Upon this notification I began to observe the behavior of the magnetic needle. I have two fine needles about 4 inches long, one in a

transit with a full circle, and the other in a plane table with a range of only 5 degrees on either side of the zero. As the first trembled too much on account of the mechanical vibrations of the floor of the room, I confined my attention to the second. I saw the north end of the needle first creep a few degrees to the west, and then by slow stages advance as far as five degrees to the east. Although I kept myself as motionless as possible, I saw the needle swing violently to the west, the full range of the case, through an arc, therefore, of more than 10 degrees, so that it rebounded by its impact against the side. This was at about 5 P.M., Summer Central Time.

A double track electric railway ran north and south about 150 feet to the east of the needle. At almost its nearest point there is a break in both trolley lines, serving as a division point between two sections. This meant that the current supplied over the trolley to the cars was suddenly interrupted whenever the cars came to this division point. I watched the needle very closely at these moments to see whether this feature might account for its oscillations, but could not find the least connection. The next day the needle was as quiet as if it had been riveted to its case.

WILLIAM F. RIGGE

#### QUOTATIONS

##### SCIENCE AND THE PRESS

Is it possible for the newspaper press to be a useful intermediary between the investigator and the public? Mr. Chester H. Rowell, a well-known American journalist, discussed the question at the recent Pacific meeting of the American Association for the Advancement of Science. Neither here nor in the United States can there be any doubt as to the advantage of widespread knowledge of the methods, the objects, the results, and the personalities of science. Even during the war we suffered much from misapprehension of these. Science was called on to produce, and did produce, magical results as a conjuror produces rabbits from his sleeve. There was no appreciation of the long training, the elaborate