A quantitative estimation of the silver in the substance gave a result which was five per cent. lower than the theoretical amount of silver in silver cyanide.

This is in all probability due to the impurities contained in the compound, which arise from the potassium cyanide used in its preparation.

The amount of substance used in the analysis was very small, since what appeared to be a rather large quantity of the original, moist, gelatinous compound, shrivelled to a very small bulk on drying.

Repeated attempts have since been made to procure more of the substance for analysis, but all efforts have so far been futile. The amounts of silver chloride and potassium cyanide used have been varied, and the fusion likewise has been made at different temperatures, but without success. It is the intention of the author to fuse silver cyanide with potassium cyanide, and thereby to obtain the desired result.

UNIVERSITY OF PENNSYLVANIA,
PHILADELPHIA, June 15, 1893.

THE ELECTRICAL SECTION

OF THE

FRANKLIN INSTITUTE.

[Proceedings of the stated meeting, held Tuesday, May 30, 1893.]

HALL OF THE FRANKLIN INSTITUTE,
PHILADELPHIA, May 30, 1893.

ELMER G. WILLYOUNG, President, in the chair.

The Section's meeting of this date was called to order by President Willyoung, with an attendance of twenty members and visitors. The Treasurer reported a balance on hand of \$17.09.

Mr. Willyoung reported that Prof. Elihu Thomson had written in response to the Section's invitation, that he was unable to appear at this time on account of prior engagements.

Mr. W. N. Jennings exhibited, by a projecting lantern, some lightning photographs. He first mentioned having shown before the Section, at its stated meeting of September 27, 1892, a number of these photographs, taken by him from a moving train, while crossing the prairies of North Dakota, being apparently single flashes, but giving multiple images of telegraph poles and

buildings. He stated that, at that time, from actual observation, he had come to the conclusion that lightning was a rapid oscillation or pulsation along a given path, and if the camera is moved during such a discharge, the resulting photograph would show a series of parallel lines, more or less numerous according to the rapidity of the camera movement. He now exhibited a photograph of a multiple flash of lightning taken from a moving train, the original flash appearing to the eye a single line of light, but in the photograph having even distinct lines, all having the same contour. He also showed a large "ribbon" flash of lightning, which effect, according to Tesla, Thomson, Young and others, was due to camera movement during the discharge. Mr. Jennings pointed out the fact that in the photograph, the telegraph poles, railroad ties and branches from the main stem of the discharge were all sharply defined, which led him to doubt the suggestion that the ribbon effect in this particular case was due to camera movement.

Mr. Thos. Spencer read a paper on "Some Interesting Peculiarities of Alternating Arc Lamps. It was referred for publication

The meeting then adjourned.

ROBT. H. LAIRD, *Secretary*.

[*Proceedings of the stated meeting, held Tuesday, June 27, 1893.*]

HALL OF THE FRANKLIN INSTITUTE,
PHILADELPHIA, June 27, 1893.

ELMER G. WILLYOUNG, President, in the chair.

The stated meeting of the Section was called to order by President Will-young, with an attendance of seventeen members and visitors.

Minutes of the previous meeting were read and approved. The Treasurer reported \$36.09 on hand, and presented a bill for \$3.20 for printing, which he was authorized to pay.

Mr. Paul A. Winand read a paper on "Rotary Magnetic Fields." It was referred for publication.

The President having been obliged to leave and neither of the Vice-Presidents being present, Mr. L. F. Rondinella was elected Chairman, *pro tem*.

It was moved that a vote of thanks be extended to the Secretary of the Institute for his courtesy in placing before the Section an exhibit of "Carborundum," and the data concerning some of its properties. The meeting then adjourned until September 26th.

R. H. LAIRD, *Secretary*.