December 20, 1901, is simplified much further by noticing that, as the velocity of $H$ is $Wgh \sin \vartheta$ perpendicular to the plane $OGK$, the hodograph of $H$ (turned backwards through a right angle) is similar to the projection on a horizontal plane of the path of a point $C$ on the axis of the top; and thus

$$Wgh \sin \vartheta e^{\psi i} = -i \frac{d}{dt}(\rho e^{\pi i})$$

by which the vector of the projection of $C$ is derived from the herpolhode curve described by the vector $OH$ of resultant angular momentum by means of a simple differentiation; and this holds for the general top, not merely the symmetrical. I take this opportunity of calling attention to some misprints:* as $\mu$ for $u$, and $p$ for the Weierstrassian symbol in equations (32) to (40).

A. G. GREENHILL.

ORDNANCE COLLEGE,
WOOLWICH, ENG.,
April 7, 1902.

STEINER'S 'LOST' MANUSCRIPT OF 1826.

IN 1826 Steiner announced that he had a manuscript, 'Über das Schneiden (mit Einschluss der Berührung) der Kreise in der Ebene, das Schneiden der Kugeln im Raume und das Schneiden der Kreise auf der Kugelfläche,' ready for print. The subject of this paper, treated by a mathematician like Steiner, has always been considered as of fundamental importance for the development of the geometry of the circle. Since the death of Steiner (1863) until recently, all efforts of recovering this celebrated manuscript were in vain. In 1896, on the occasion of the centennial celebration of Steiner's birthday, in Bern, Dr. Bützberger found a box in the garret of the library of the Naturforschende Gesellschaft in Bern, containing several manuscripts of Steiner, *among which was also the one supposed to be lost.*

This fact is also interesting in connection with Professor Fiedler's (Zürich) investigations on cyclography for which he received the Steiner prize from the Berlin Academy of Science. In a recent letter to the writer, Fiedler remarks that he was in possession of the principles of cyclography (treatment of geometrical problems by means of circles) already in 1863, and that he waited for the publication of Steiner's collected works by Weierstrass in 1881, because he expected to find in it said paper and Steiner's corroboration of his (Fiedler's) results by a similar method. The inspection of Steiner's manuscript, found in 1896, shows however that it does not contain the slightest trace of Fiedler's method. Fiedler is therefore the founder of cyclography.

UNIVERSITY OF COLORADO. ARNOLD EMCH.

AN UNPUBLISHED LETTER BY RAFINESQUE.

TO THE EDITOR OF SCIENCE: During the residence of C. S. Rafinesque in Sicily, after his first four years' stay in America, he was in frequent correspondence with American botanists. From them he constantly sought for collections of local plants, offering Sicilian and other European plants in exchange. The letters were written by Rafinesque during the period of greatest mental strength and activity, and hence seem to illustrate certain phases of his mental life in a most interesting and instructive manner. Letters of this period seem to be quite rare and the following, presented me in copy by Mr. Curtis G. Lloyd, of Cincinnati, with permission to use it as I should wish, seems to well illustrate in the case of Rafinesque his methods of enriching his own herbarium. So far as I have any information in the matter, Rafinesque always fully repaid these exchange debts—thus setting a most commendable example to others who may be 'less eccentric' than the Sicilian botanist. The letter was written to Dr. Manasseh Cutler, then of Massachusetts, but more recently of Ohio, and seems to confirm our general view that Rafinesque was an inveterate collector and that he used every known honest means to increase the number of sheets in his herbarium. The letter was written in 1806 and is interesting of itself. I send it to you, thinking some readers of SCIENCE may be interested in it through their knowledge of the 'eccentric naturalist.'

BROOKLYN, N. Y., R. ELLSWORTH CALL.
March 29, 1902.

PALERMO, *2nd May, 1806.*

*Dear Sir:—*

I confirm what I had the pleasure to write

* These have already been corrected (see SCIENCE, XV., p. 440).—EDITOR.

you per Alfred Capt. Felt, and another opportunity offering for Salem I cannot help entreating you again to have the goodness to comply with my request of collecting and sending me some of your most curious plants and particularly such I have pointed out in my former letters, the numerous opportunities from Salem and Boston to this place will afford you every facility in forwarding me same.

I am still expecting to hear from you if you got the plants I left for you at Francis Hotel and how you like them. If you have an European Herbarium or wish to make one I am ready to forward you specimens of the finest and nicest Italian and Sicilian plants in return from those I expect from you and beg you will command in everything else in my power.

Please to remember also to forward me Suplt. you promised me of the plants you have found in your Northern States since the publication of your paper in the American Academy Transactions.

I would entreat you to include in the plants you may send me, particularly those belonging to the tribe of Orchidean, Graminean, Calamariæ, Muci, Algæ, etc., as they are particularly interesting to me and I know you have well determined a number of them through Dr. Muhlenberg's means.

I should like to know the botanical names of all your Cherries, Vacciniums, etc., or a sketch of their descriptions (since you only mentioned their vulgar name in said paper) to enable me to discover it if you cannot send them in nature with the fruits or flowers.

I am most sincerely and with the most grateful wishes,

Dear Sir,

Your most obedient servant,

C. S. Rafinesque,
Care Mr. Bibbs Conpit,
Un Admer.
Palermo.

Dr. Manasseh Cutler,
Hamilton,
Near Salem,
Massachusetts.

favored by Mr.
Th. Bancroft.

'NODULES' IN COLORED BLOOD CORPUSCLES.

'Nodules' in mammalian colored corpuscles, such as those referred to by Professor Macloskie, were described by Mr. Victor Horsley, of London, in an address delivered on May 4, 1897, at a meeting of the 'Arztlicher Verein' at Hamburg. He did not, however, observe them in all the corpuscles, but only in some. In his paper, published, I think, in one of the volumes of collected papers from the Physiological Laboratory of University College, London, he mentions that Arndt saw granules in the red corpuscles which stained with methyl violet. Horsley's own observations were made by the intra vitam methylene blue method. In connection with my work on haemolysis, carried on during the past five years, I have had frequent opportunity to observe that when methylene blue is added to blood laked in various ways, blue granules generally situated eccentrically are revealed in some of the ghosts. G. N. Stewart.

A MUD SHOWER.

To the Editor of Science: On Saturday, April 12, at noon there occurred what has aptly been called a 'mud shower.' Collars and shirt fronts were spattered with dirt. It lasted only a few minutes, but was sufficiently unpleasant to create considerable discomfort. Window glasses on the western exposure of houses were covered with thousands of drops of dirty water. An examination of these drops with a simple microscope showed what appeared to be little membranous bags containing grains of dust. The dust particles were black with occasional instances of yellow and a few of red. The atmosphere at the time of the shower, and before, contained considerable dust. This phenomenon seems to give a striking confirmation of the dust-nuclear theory of the formation of rain drops. J. W. Moore.

Lafayette College,
Easton, Pa.

THE 'PRICKLY PEAR.'

To the Editor of Science: On page 598, issue of April 11, 1902, is printed the item that the Government of Queenland has offered a reward of $25,000 for the invention of some satisfactory means of destroying the 'prickly