

to receive the stage forceps of the microscope.

When thus arranged, the legs of a lively bee were caught within these forceps, and thus pinioned, he was laid, back down, upon a surface covered with very tenacious glue and then another covered with thinnest gold foil cut into small squares, and there held until one of same adhered securely to his wing.

When thus caparisoned, the forceps were attached to the outer end of the lever and the bee was ready for his flight (see Fig. 4). This picture was taken, however, after the bee had fulfilled his mission, and, thoroughly exhausted, had ceased struggling to escape; the object being merely to show the

I confess to many failures. Many tests were made and the pictures developed, only to discover that the bee had "left no sign."

At last, as a freshly captured subject made the circuit, his track was seen to scintillate, and on developing the picture the result was at once apparent, as plainly shown on the screen. (See Fig. 5). At each vibration he had thrown into the camera a wingful of sunbeams. The insect and rapidly moving parts of the apparatus show only in dim, shadowy outline, but in his flight, with gold tipped wing dipped in sunshine, he has inscribed his record on the sensitive plate as unmistakably as if graven in stone.

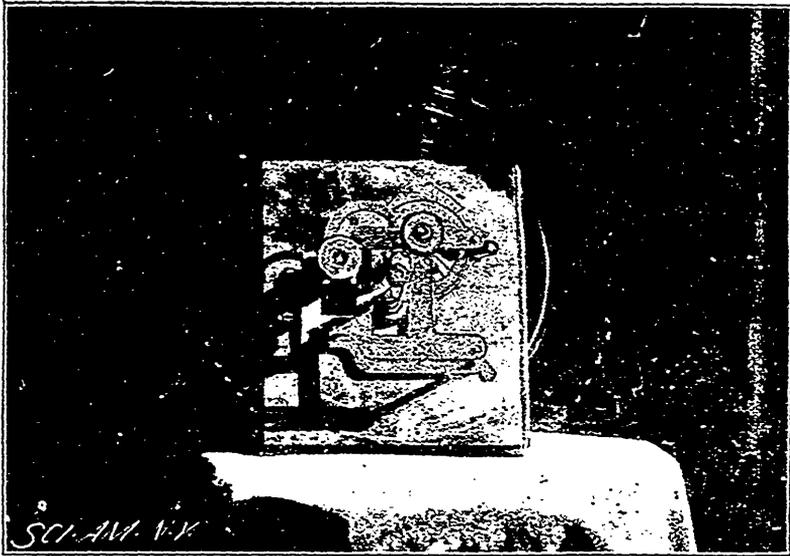


FIG. 5.—HORIZONTAL VIEW OF APPARATUS SHOWN IN Fig. 4. SHOWING SCINTILLATIONS OF THE WINGS.

arrangement of the apparatus and the gold tipped wing of the insect.

The theory was that a bee thus equipped, if photographed in the bright sunlight while in motion, might throw flashes of light into the camera, which, on account of the advancing movement, falling in different places, might be counted upon the plate.

The "snap shot" of the camera was so arranged that the exposure would be only about three-quarters of one revolution, that there might arise no confusion by passing more than once over any part of the track,

\*Extract from an illustrated lecture delivered by Aurelius Steward, of the Bridgeport, Conn., Scientific Society, at Cooper Union, New York, upon the subject of "The Honey Bee."

The Judge—Didn't I tell you the last time that you were here that I wanted to see your face in this court no more?

Weary Watkins—You did, yeronner, and that is exactly what I tole the cop.—Indianapolis Journal.