

lamp on something such as a box on the table in its correct place, that is about 4 inches to the right of the knife edge. The testing apparatus is of course so placed that the knife edge is on the right and next to the star, as in Fig. 14. The star is not shown as it is the other side of the chimney.

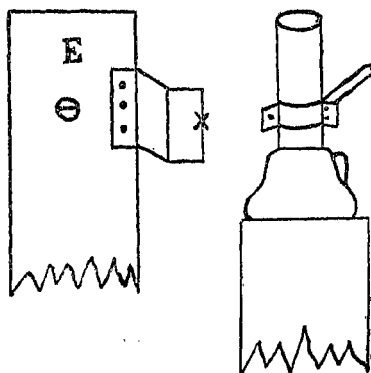


Fig. 15.

Now once more try for the reflection and eventually bring it to the place marked with X on the knife edge in Fig. 15. Having done this you may practice passing the edge across the cone of rays. If the shadow comes on the mirror from the left, your knife edge and star are too near the mirror; if from the right they are too far away. You must therefore move them until you get an equal darkening from both sides, and here we will leave the testing till my next paper.

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## Notes on Venus.

BY

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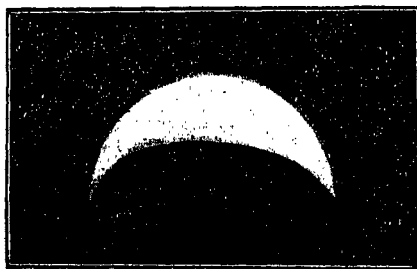
IN continuation of my brief note on Venus, published in the January JOURNAL, I herewith send two sketches of the planet. Notice how much sharper the cusp on one side is than on the other. In the sketches I have probably slightly exaggerated this difference in order that attention might be drawn to it; but there is no doubt whatever of its existence. During the past week from the 15th to the 22nd March the definition of the planet in the 5" has been much better than usual. For

several days there was a strange sort of dusty dulness in the atmosphere, and while it diminished the brightness it increased the sharpness of all the objects under observation.

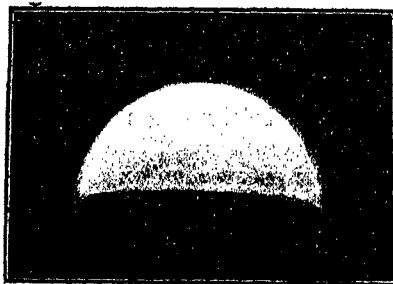
Venus is now a most striking object in the telescope as the semi-diameter is rapidly increasing. On the 31st March it will be  $23''\cdot01$ . On the 28th February it was  $14''\cdot54$ . During the early part of next month it will be a still more beautiful object as the crescent will become thinner.

I cannot say I have been successful in discovering any very definite markings on the planet; a general dulness in the body of this disc between the cusps is about all I can be sure of.

During the next three weeks my purpose is to examine the planet carefully with a view to ascertain if the unilluminated portion of the disc is visible. This has been seen by such well-known observers as Webb, Franks, Elger and Noble, but at best of times it is exceedingly difficult. What the explanation of this strange phenomenon is no one seems to know.



Venus. 21st March 1913. 5" Cooke Refractor, Power 200.



Venus. 20th February 1913. 5" Cooke Refractor, Power 250.