

An account of a Spot seen in the Sun from the 25th. of April to the 8th. of May instant, with the line of its Course predicted, if it make a second Return, by I. F. Astron. Reg.

ON the 25th. of April last past, as I was measuring the distance of the Planet ♃ from the Sun, about an hour before Noon I discovered a large Spot entered within his *diske* a little distant from his following *Limb*. These appearances however frequent in the days of *Scheiner* and *Galileo*, have been so rare of late that this is the only one I have seen in his face since *December 1676*. Wherefore I thought an account of it might not be unacceptable. By the observed *Meridional* distances of it and the Sun's Southern *Limb* from the *Vertex* at Noon I found it to have 3' 40" more north *declination* than the Sun's center, and at 3h. 35' after Noon I measured its distance from his next *Limb* 0' 40".

Next morning April 26, I saw it more remote from his *Limb*, and by the Observations then made (at 8 h. *mane*) determined its Longitude from the Sun's Axis 66 $\frac{2}{3}$ deg. and its declination from the solar Equator 9 $\frac{2}{3}$ d g. South. Whence supposing the Revolution of any point of the Sun to the same fixed Star to be performed in 25 days 6 hours, the Angle of his *Æquator* and our *Ecliptick* 7 degrees, and the Longitude of his northern Pole 16 deg. I designed the Line of its Way or trace over the Sun and the Points in it where the Spot would appear every morning after at the same hour, till its egress on the 8th. of May, as in the Figure, which I found altogether confirmed by such Observations as I made till then, so that I had no reason to doubt of the Theory.

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When the *Spot* was near the *middle* of the *Sun* it appeared very broad and almost *square*, the *Nucleus* of the same *Figure* about 40" *diameter*, shaped as it is designed in the lower part of the *Scheme*, but when it was near the *Limb* much narrower and almost *Ovall*, it seemed to have *Consistence* enough to endure a *second* return, if it shall it will enter the visible disk of the *Sun* on the 21 of *May* in the evening, and in its passage over him describe a line nearly *streight* with greater latitude from the *Ecliptick*, as I have designed it in the *Figure*, wherein you will see its place every morning at 8 a Clock till its exit the 4th. of *June* about *Sun* rise.

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The *Anachronism* committed in placing this paper in the *Transaction* of *March* was occasion'd by the necessity of its coming forth early, and there being no room for the *Diagram* belonging to it, in the *Plate* of the following *Transaction*, which was provided before the arrival of the discourse.

Philosoph. Transact.

Fig. 3.

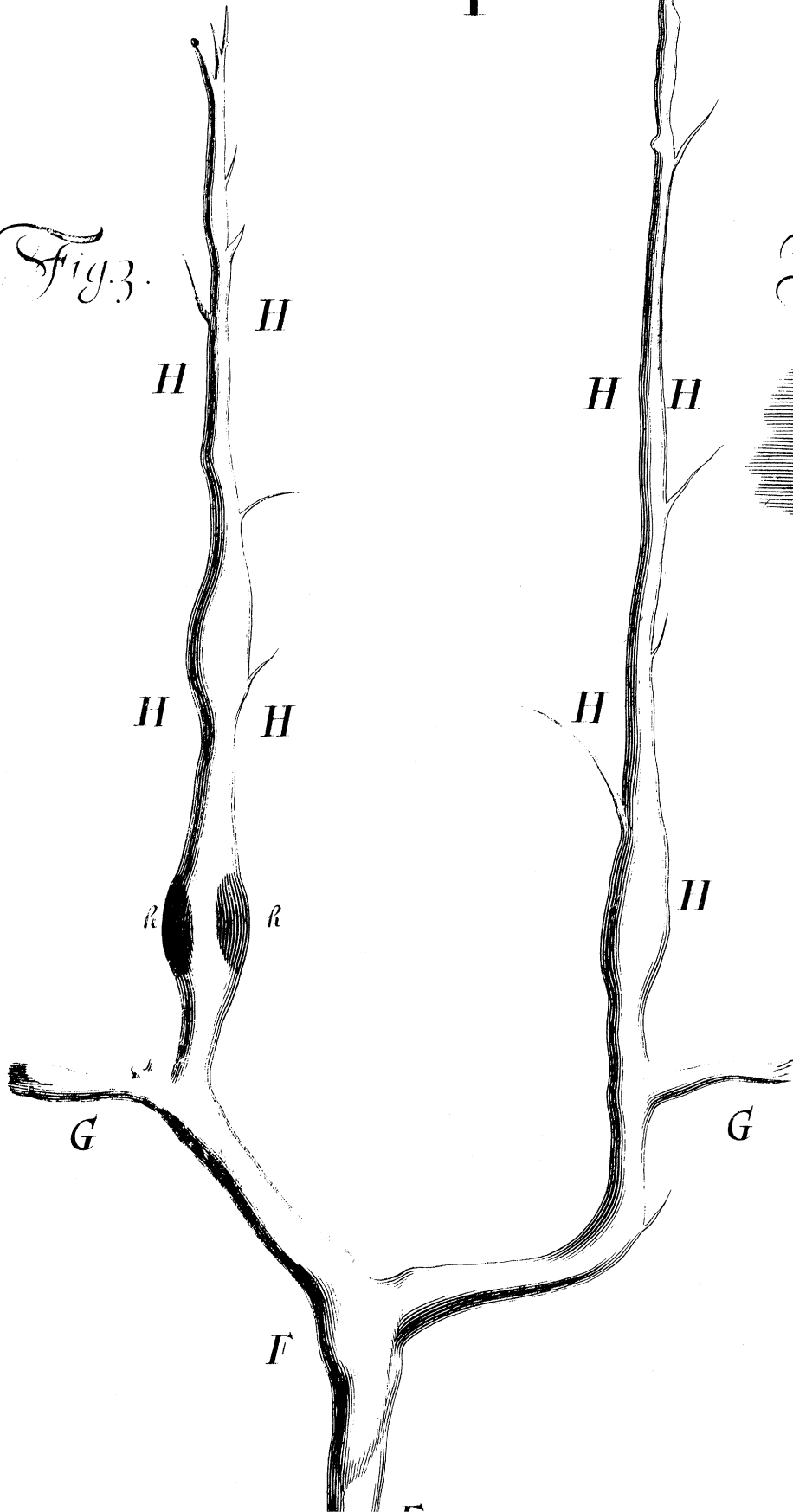


Fig. 2.



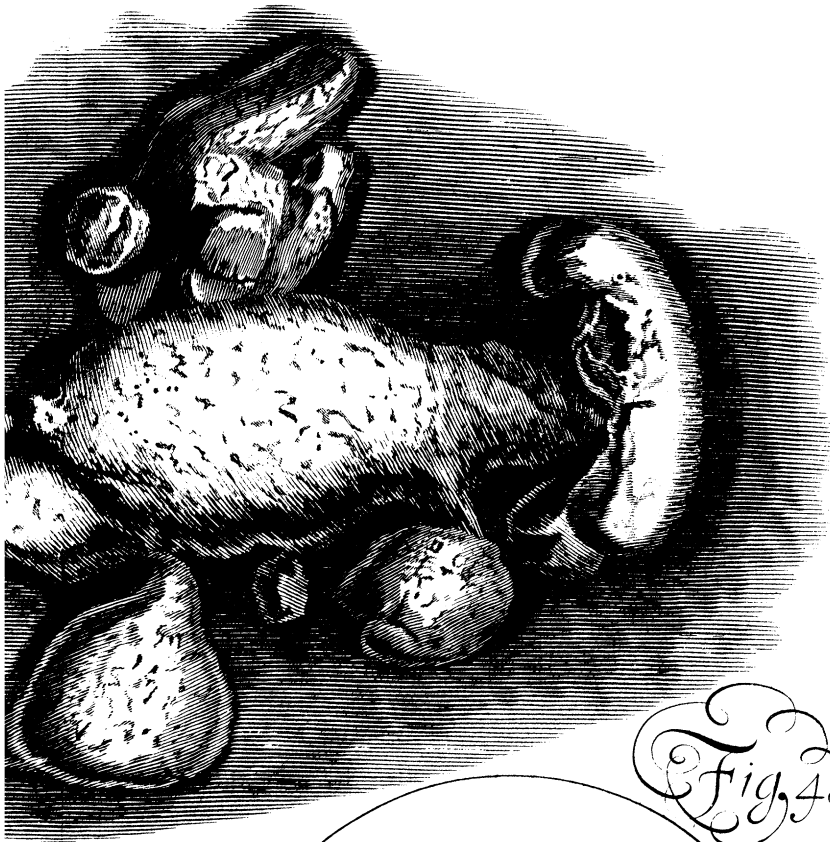


Fig. 4.

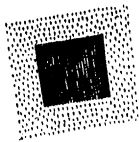
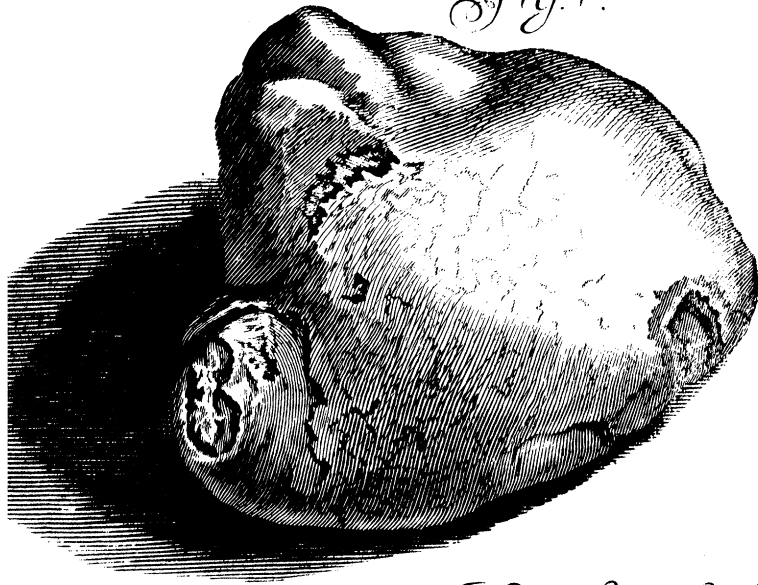






Fig. 1.



A. Burgkers sculp.

Fig. 3.

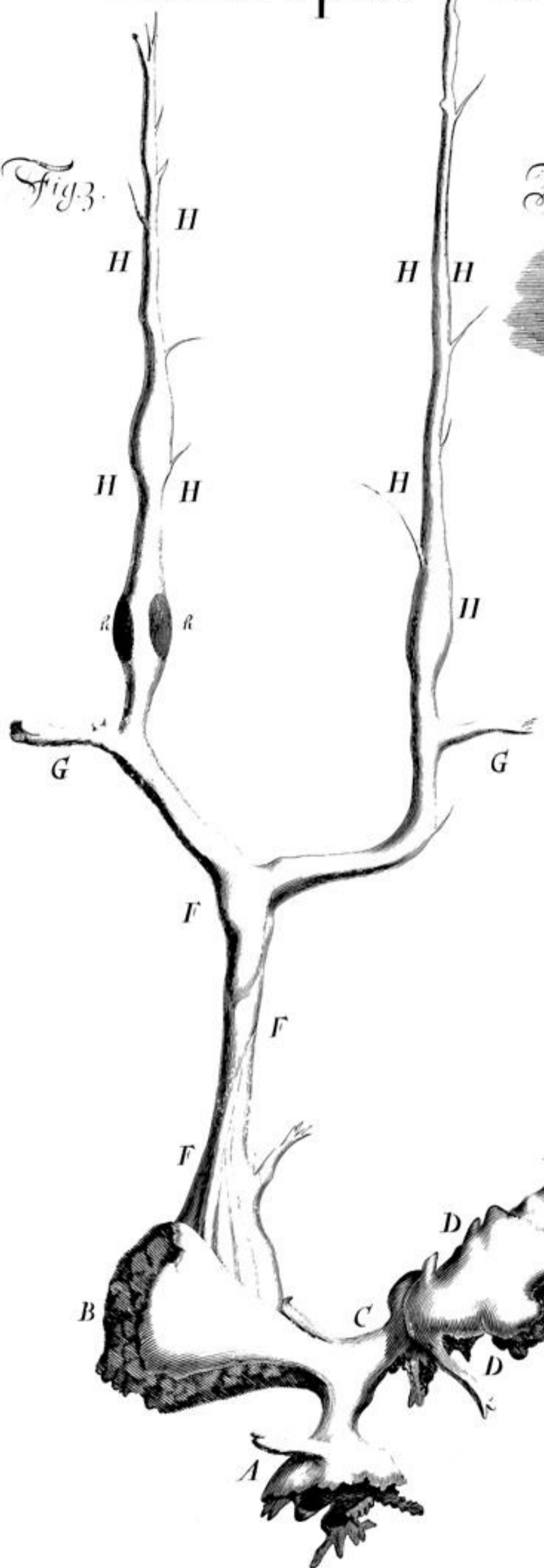


Fig. 2.

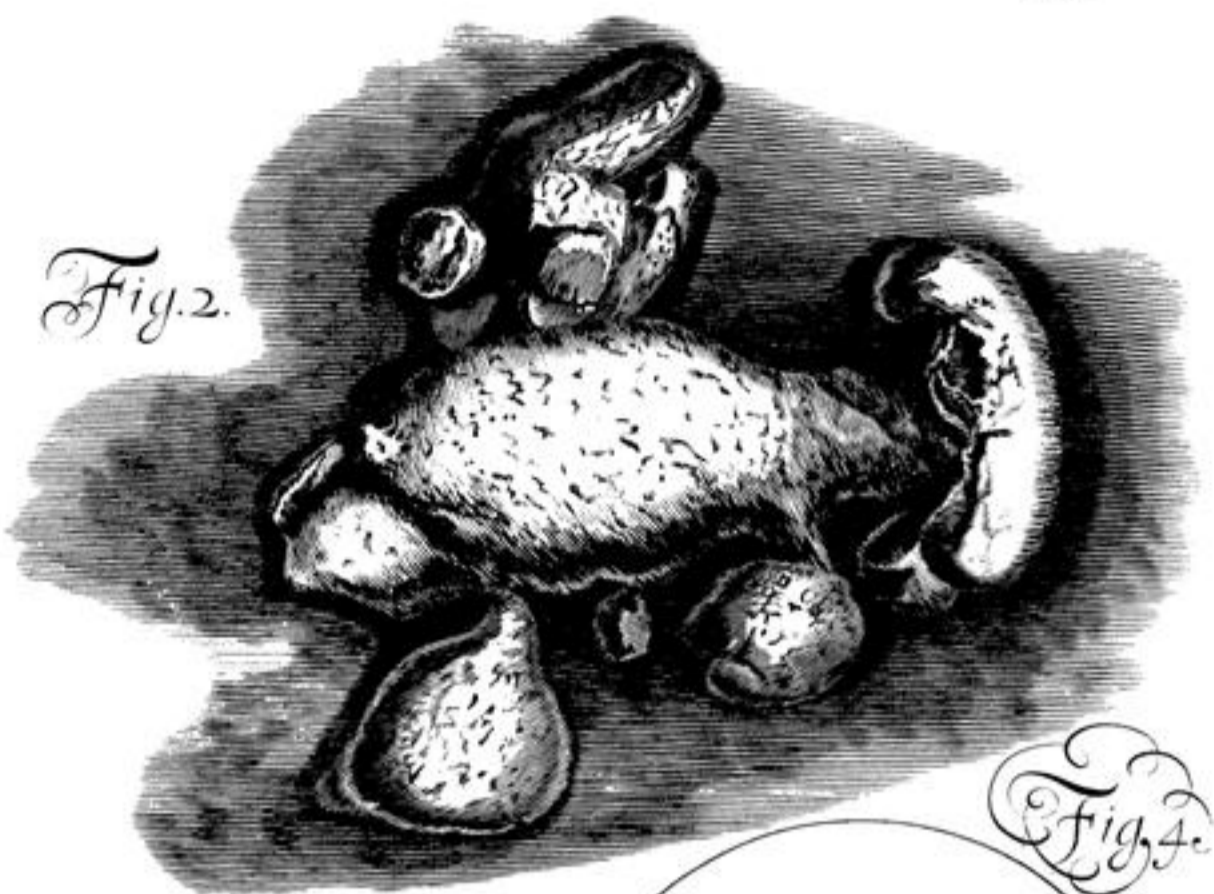


Fig. 4.



Fig. 1.



A. Burglers sculp.