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B. P. J. DE JONGH

APPARATUS FOR SHARPENING RAZORS

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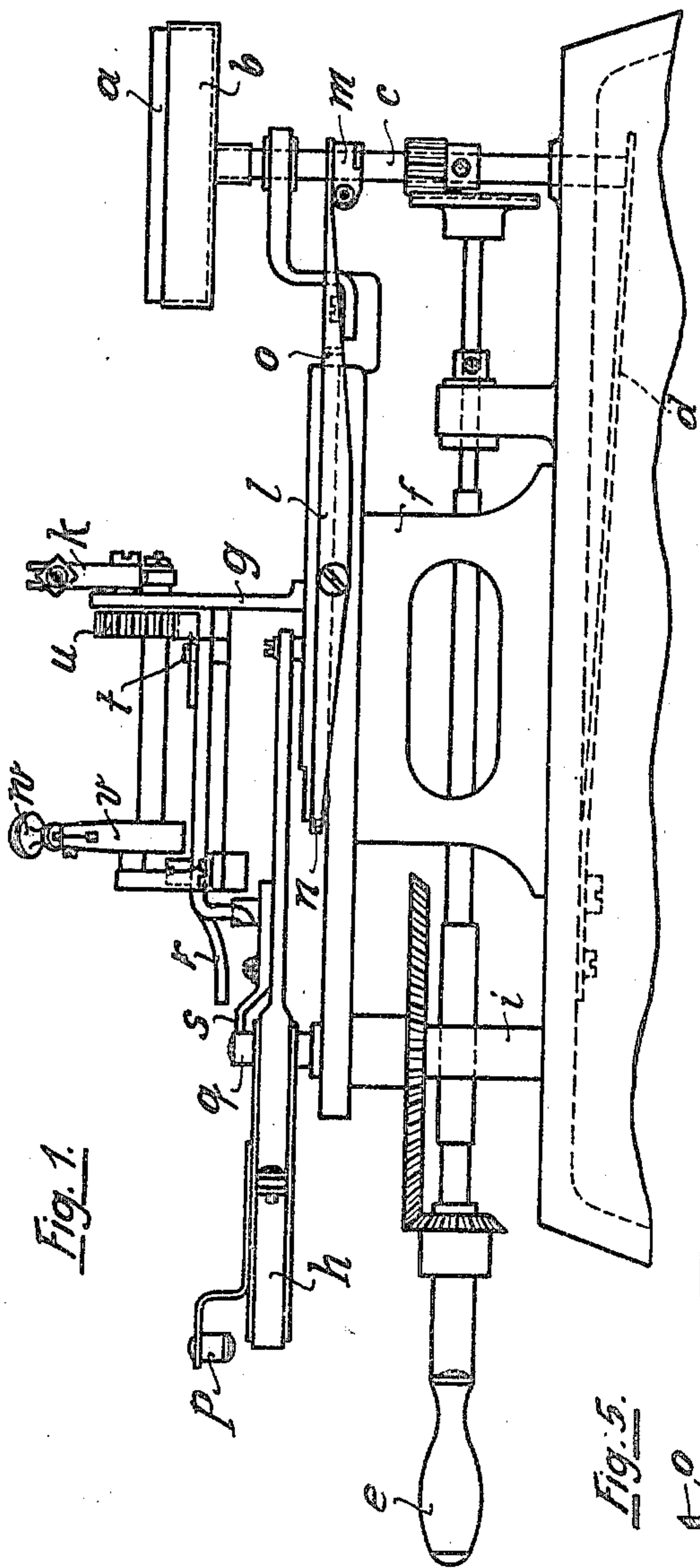


Fig. 1.

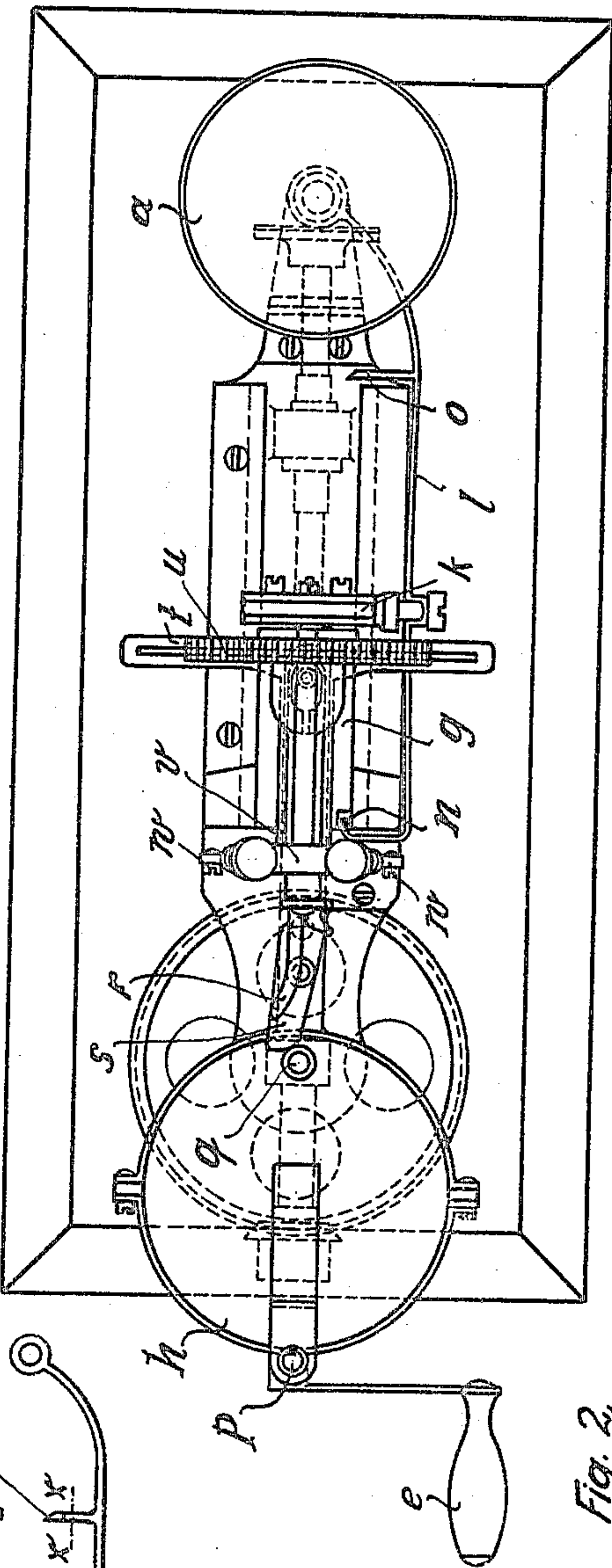


Fig. 2.

Fig. 3.

Fig. 4.



Witnesses:
A. G. G. G.
W. J. J. J.

Inventor:
Bernardus Petrus Jacobus de Jongh

UNITED STATES PATENT OFFICE.

BERNARDUS PETRUS JACOBUS DE JONGH, OF BREDA, NETHERLANDS.

APPARATUS FOR SHARPENING RAZORS.

Application filed November 17, 1921. Serial No. 515,840.

To all whom it may concern:

Be it known that I, BERNARDUS PETRUS JACOBUS DE JONGH, a subject of the Queen of the Netherlands, and residing at Breda, Netherlands, have invented certain new and useful Improvements in Apparatus for Sharpening Razors, of which the following is a specification.

This invention relates to improvements in apparatus for sharpening razors of that known type, in which the razor is inserted in a reversible holder and reciprocated in the direction of its cutting-edge upon a horizontally rotatable grinding-stone.

The improved apparatus essentially comprises a horizontally rotatable grinding-stone, a reversible and reciprocating holder for the razor to be sharpened, means to lower said grinding-stone during the reversion of said holder, and adjustable means to limit the reversing movement of said holder, substantially as hereinafter described and claimed.

In the accompanying drawing: Figs. 1 and 2 are respectively a side view and a plan view of the improved apparatus, while Fig. 3 shows a detail in a plan view, and Figs. 4 and 5 are sections, respectively on the lines $z-z$ and $x-x$ of Fig. 3.

a is the grinding-stone with horizontally arranged grinding surface, which is inserted in a cup b at the upper end of a shaft c . The lower end of said shaft bears upon a blade-spring d riveted to the frame f of the apparatus and which tends to press said shaft, and thus also the grinding-stone, upwards. For intended use of the apparatus, the shaft c is set in rotation from a hand-crank e by means of a toothed-gearing. The frame f carries a slide g , which is set in reciprocating movement by means of an eccentric h keyed on the axle i , which gears with said hand-crank e by means of a bevel-gearing. Said eccentric h carries two rollers p and q , which are adapted to act upon a lever r mounted upon said slide, namely p directly and q through the medium of an intermediary lever s . Upon rotation of the eccentric h , the lever r is alternately turned to one and to the other side of the slide g , a toothed rack t , which gears with a toothed wheel u , being caused to participate in said movement and turn said toothed wheel u for about one half revolution alternately to the

left and to the right. Said toothed wheel u , which is mounted on the slide g , is in connection with a holder k , in which the razor to be sharpened is to be fixed. The razor is, thus, so reversed at the end of each stroke of the eccentric h that the two sides of its cutting-edge are alternately brought in contact with said grinding-stone and thus sharpened. On the axle of the toothed wheel u and thus of the holder k , arms v with adjusting-screws w are firmly mounted. By a corresponding adjustment of said screws w the oscillation of the holder k to both directions can be exactly controlled or determined. Said arms v serve at the same time automatically by their own weight to keep the razor to be sharpened in contact with the grinding-stone a . On the frame f , a balance-beam l is arranged, with its front end guided on the shaft c and adapted to bear against an abutment m . Said balance-beam projects with lateral projections n and o into the path of the slide g . At the reversing point of the latter during its reciprocation, that is also at the turning-over of the razor to be sharpened from one side of its cutting-edge to the other relatively to the grinding-stone a , said slide g strikes with inclined planes thereon (Fig. 4) against similar inclines of the projections n , o of the balance-beam l , whereby the latter is so adjusted that the shaft c is pressed downwards against the action of the blade-spring d and the razor can be freely turned-over without coming in contact with said grinding-stone.

What I claim, is:—

1. In an apparatus for sharpening razors, in combination, a horizontally rotatable grinding-stone, a reversible and reciprocating holder for the razor to be sharpened, means to lower said grinding-stone during the reversion of said holder, and adjustable means to limit the reversing movement of said holder, substantially as and for the purpose set forth.

2. In an apparatus for sharpening razors, in combination, a horizontally rotatable grinding-stone, a reversible and reciprocating holder for the razor to be sharpened, a slide carrying said holder, means to lower said grinding-stone during the reversion of said holder comprising a balance-beam adapted to be actuated by said slide and to act upon the axle of said grinding-stone, and

adjustable means to limit the reversing movement of said holder, substantially as and for the purpose set forth.

3. In an apparatus for sharpening razors,
5 in combination, a horizontally rotatable grinding-stone, a reversible and reciprocating holder for the razor to be sharpened, means to lower said grinding-stone during the reversion of said holder, and adjustable
10 means to limit the reversing movement of said holder comprising arms with adjusting-

screws on the turning-axle of said holder substantially as and for the purpose set forth.

In testimony whereof I have hereunto set 15 my hand in the presence of two subscribing witnesses.

BERNARDUS PETRUS JACOBUS de JONGH.

Witnesses:

GERVAN ALPHEN,
A. BOCKEM.