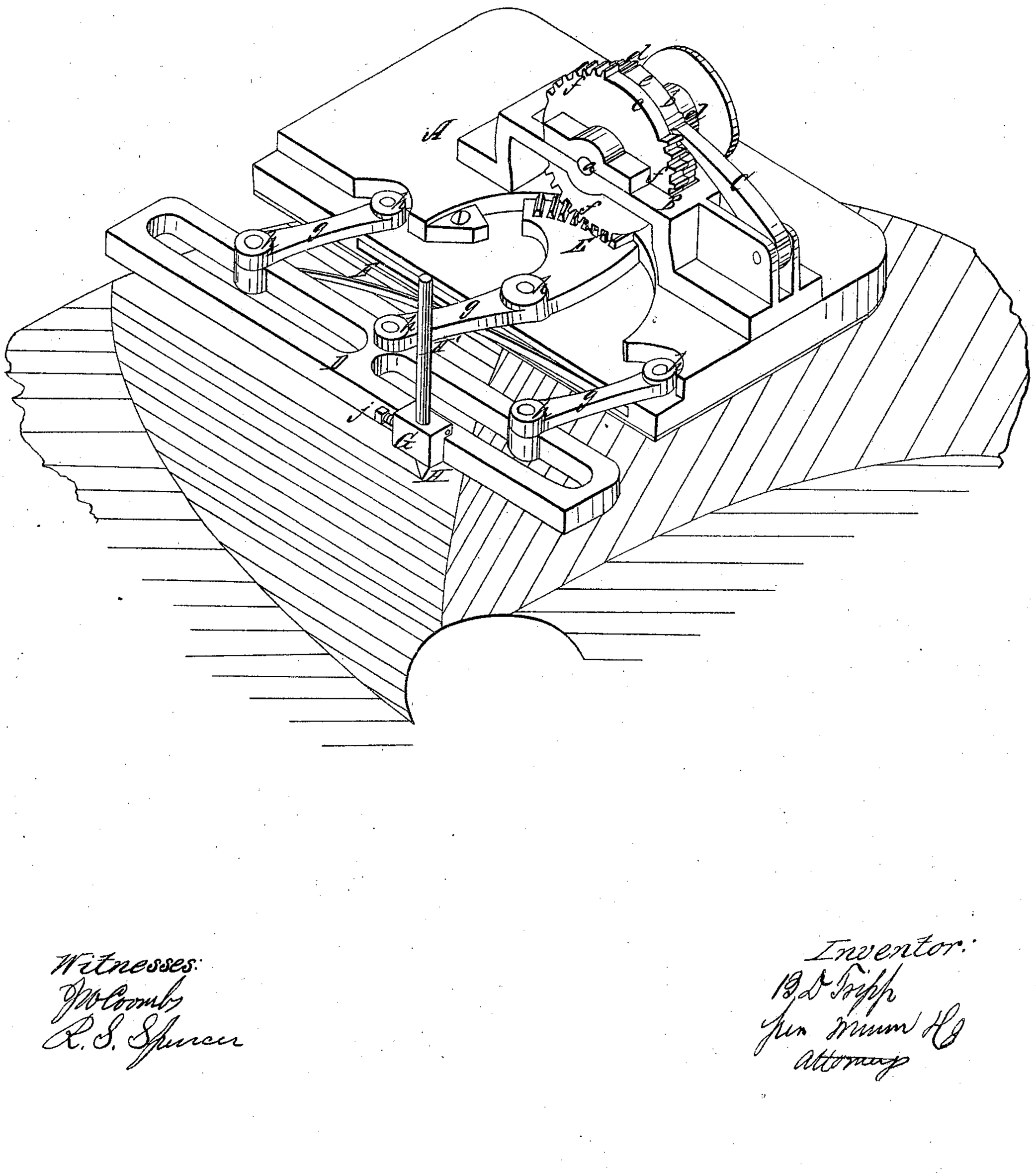
B. D. Tripp,

Dressing Millstones.

No. 30,995. Patented Dec 18, 1860.



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UNITED STATES PATENT OFFICE.

B. D. TRIPP, OF MORAVIA, NEW YORK.

DEVICE FOR GUIDING DIAMONDS FOR DRESSING MILLSTONES.

Specification of Letters Patent No. 30,995, dated December 18, 1860.

To all whom it may concern:

Be it known that I, B. D. TRIPP, of Moravia, in the county of Cayuga and State of New York, have invented a new and useful Device for Guiding Diamonds When Used for Dressing Millstones; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, said drawing being a perspective view of my invention applied to its work.

This invention consists in attaching a bar or straight edge by parallel arms to a suitable bed and adjusting the bar or straight edge by means of gearing, arranged substantially as hereinafter fully shown and described, whereby the diamond may be made to cut in parallel lines and adjusted to any part of the face of the stone with the greatest facility.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a bed piece of quadrilateral form on which a small frame B, is secured, having a small shaft *a*, upon it. On the shaft *a*, there are placed two wheels *b*, *c*, side by side, and connected together. One of these wheels,—the wheel *b*,—has ratchet teeth *d*. The teeth are not all of the same size, the periphery of the wheel being divided into sections with different sized teeth, smooth surfaces *e*, are allowed between the toothed sectors *d*. The wheel *c*, is provided with toothed sections *f*, which are by the side of the toothed sections *d*, of the wheel *b;* the teeth of wheel *c*, however, are of the ordinary form used in gears.

C is a pawl which is secured in frame B, and engages with the teeth *d*, of the ratchet *b*, as shown plainly in the drawing.

D is a bar or straight edge, which, for the sake of lightness, may be slotted vertically at its center, or in other words made in skeleton form. This bar or straight edge D, is connected to one side of the bed-piece A, by parallel arms *g*, *g*, *g*, which are connected at their ends to the straight edge and bed-piece by bolts *h*, which form joints or pivots. The central arm *g*, extends some distance over on the bed-piece A, and terminates in a toothed segment E, into which the teeth *f*, of the wheel *c*, gear. To the side of the bed piece A, opposite the bar D, there is attached a spring F, which bears against the inner side of the bar or straight edge D, and has a tendency to keep the same out from the bed-piece.

G is a slide which may be of rectangular form with a shoulder *i*, at one side to rest on the bar or straight edge D. In this slide G, the diamond cutter H, is placed, the cutter being at the lower end of a rod H′, which passes vertically through the slide G, and is retained in proper position by a set screw *j*.

The operation is as follows: The bed piece A, is placed on the face of the millstone (shown in red) in such a position as to bring the bar or straight edge D, parallel with the grooves or cuts to be made in the stone, and the latter are formed by shoving the slide G, along on the bar or straight edge D. At the terminations of each cut of the diamond, the operator turns the wheels *b*, *c*, the distance of a tooth *d*, in the wheel *b*, and the central arm *g*, will be actuated through the medium of the wheel *c*, and segment E, and the bar D, moved toward or from the bed-piece A, a space equal to the required distance between the cuts, said space being regulated by the size of the teeth *d*, which vary with the different sections on wheel *b*,—either being used as required.

The bed-piece A, may be adjusted at any part of the face of the stone and the under surface of the former may have india-rubber cloth or other suitable substance attached to it to prevent slipping.

The pawl C, prevents the casual movement of the bar or straight edge D, under the action of the spring F.

The device is extremely simple and efficient and may be cheaply constructed.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

The bar or straight edge D, attached to the bed-piece A, by parallel arms *g*, and actuated or adjusted by the ratchet wheel *b*, gearing *c*, E, and spring F; in connection with the slide G, provided with the diamond cutter H; all being arranged substantially as and for the purpose set forth.

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