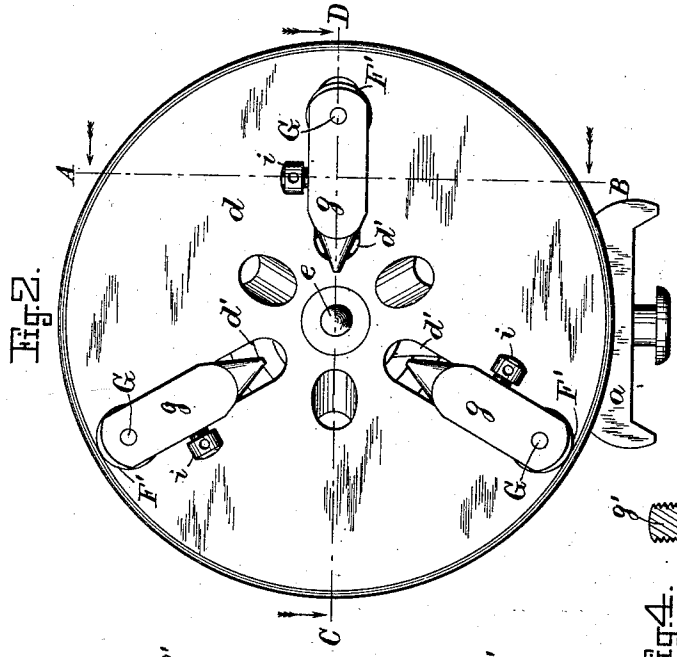
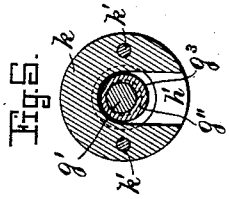
(No Model.)

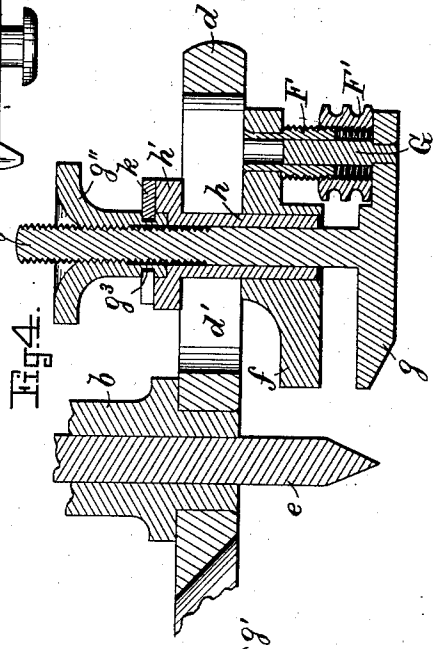
E. RIVETT.

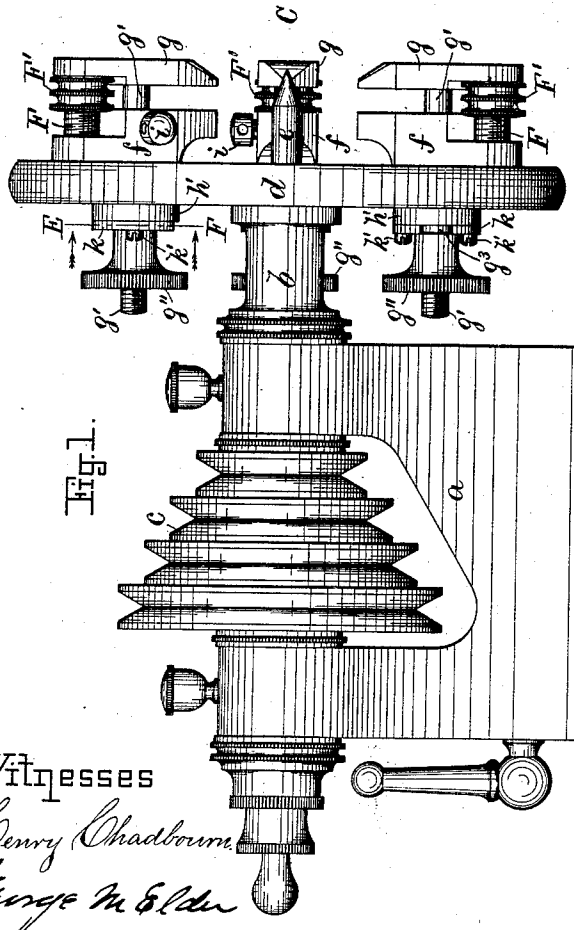
CLAMPING JAW FOR WATCH MAKERS' LATHES.

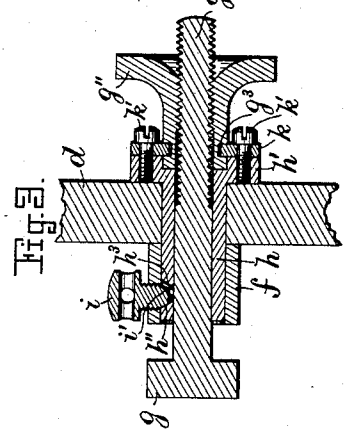
No. 375,771. Patented Jan. 3, 1888.











Witnesses

Henry Chadbourn

George M. Elder

Inventor

Edward Rivett

by Albert Andrews

his attys.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

EDWARD RIVETT, OF BOSTON, MASSACHUSETTS.

CLAMPING-JAW FOR WATCH-MAKERS' LATHES.

SPECIFICATION forming part of Letters Patent No. 375,771, dated January 3, 1888.

Application filed July 11, 1887. Serial No. 243,956. (No model.)

To all whom it may concern:

Be it known that I, EDWARD RIVETT, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Clamping-Jaws for Watch-Makers' Lathes, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in clamping-jaws for watch-makers' lathes, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side view of a lathe head-stock and face-plate provided with my improved clamping-jaws. Fig. 2 represents an end view of the same. Fig. 3 represents an enlarged cross-section of the face-plate and clamping-jaw on the line A B in Fig. 2. Fig. 4 represents an enlarged longitudinal section of said parts on the line C D, also shown in Fig. 2; and Fig. 5 represents an enlarged cross section on the line E F shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a represents the head-stock of a watch-maker's lathe, on which *b* is the hollow spindle, *c* the cone-pulley, and *d* the face-plate, with its center pin, *e*, in the usual manner.

d' d' d' are radial slots in the face-plate *d*, in which the clamping-jaws are made adjustable, according to the size of the object to be held and secured in the clamping-jaws.

f is the inner clamping-jaw, and *g* is the outer one. The inner jaw, *f*, is adapted to be held firmly against the front of the face-plate *d*, and it has a horizontal perforation, in which is inserted the forward end of the sleeve *h*, which passes through the slot *d'*, and is provided in its rear end with a collar or flange, *h'*, adapted to rest against the rear of the said face-plate *d*, as shown.

When it is desired to secure the inner jaw, *f*, to the face-plate *d*, the latter is clamped between the under side of the jaw *f* and flange *h'* of the sleeve *h* by means of the set-screw *i*, (shown in Fig. 3,) that is screwed through the hub of the jaw *f*, and has its inner tapering end, *i'*, adapted to press against an inclined face, *h''*, forming one portion of the tapering or slotted hole or recess or depression h^3, made in the sleeve *h*, as shown in Fig. 3, and it will thus be seen that when the screw *i* is tightened up its lower tapering or rounded end, *i'*, comes in contact with the incline *h''* in the sleeve *h*, and thus causes the under sides of the flange *h'* and jaw *f* to be clamped against opposite sides of the face-plate *d*. By loosening the screw *i* the said flange and jaw are loosened from the face-plate *d*, thus enabling the sleeve *h* to be moved to any desired part of the slot *d'*, and there to be secured in the same manner, according to the size of the object to be held in the clamping-jaws.

The outer clamping-jaw, *g*, is provided with the spindle *g'*, passing through and made adjustable in the sleeve *h*, as shown in Figs. 3, 4, and 5. The spindle *g'* is screw-threaded in its rear end and provided with a regulating thumb-nut, *g''*, having near its forward end an annular groove, g^3, in which is fitted the washer or plate *k*, that is preferably made in the form of a slitted disk, (shown in Fig. 5,) and secured by means of screws *k' k'* to the flange *h'*, as shown in Fig. 3; but the particular form of said washer is not important, as it may be made in two halves or other suitable manner without departing from the essence of my invention. By turning the thumb-nut a longitudinal adjustment of the clamping-jaw *g* to or from the inner jaw, *f*, is obtained. The jaw *g* has secured to its outer end the pin G, which is arranged parallel with the spindle *g'*, as shown in Fig. 4, and it is guided in the quill or sleeve F, secured to the outer end of the jaw *f*, by which arrangement the latter and its spindle are prevented from turning round when adjusted relatively to the jaw *f*.

The quill or sleeve F is exteriorly screw-threaded, as is usual in devices of this kind, and surrounded by an adjustable thumb-nut, F', which serves as a back-rest for the jaws and prevents their springing out of parallel positions when the object to be turned in the lathe is clamped by the thumb-nut *g''* between said jaws *f* and *g*.

In using this my improved clamping-jaw I proceed as follows: By loosening the set-screw *i* the jaw *f* and collar *h'* are made free to be adjusted on the face-plate *d* out or in as far as the slot *d'* will admit. After the jaw *f* has

been moved to the desired position, it is clamped firmly to the face-plate *d* simply by turning the set-screw *i*, as above described. The article to be clamped is then introduced between the jaws *f g* and clamped between the latter simply by turning the thumb-nut *g''* and adjusting the nut F' at the back end of the jaws accordingly. It will thus be seen that I employ two independent, positive, and simple devices—one for securing the jaw *f* to the face-plate and another for operating the outer jaw, *g*, to or from the jaw *f*, as above described.

What I wish to secure by Letters Patent and claim is—

1. In lathes, the slotted face-plate *d*, the jaw *g*, and the sleeve *h*, having flange *h'* in one end and inclined face or recess *h'' h*³ in the other, in combination with the clamping-jaw *f*, journaled on said sleeve and having the set-screw *i i'*, for the purpose of securing the said clamping-jaw and sleeve to the face-plate, as set forth.

2. In lathes, the flanged sleeve *h h'*, having the inclined face or recess *h'' h*³, and the jaw *f*, journaled on said sleeve and provided with the set-screw *i i'*, in combination with the jaw *g*, having the spindle *g'*, adapted to slide in the sleeve *h*, and having the nut *g''*, connected to said sleeve, for the operation of the jaw *g* to and from the jaw *f*, as set forth.

3. The flanged sleeve *h h'* and the jaw *f*, having the set-screw *i i'*, arranged as described, for clamping said parts against opposite sides of the slotted face-plate *d*, in combination with the jaw *g*, having spindle *g'*, adapted to pass through the sleeve *h*, and having regulating-nut *g''* for its manipulation, and the back-rest device F F' G at the rear of the jaws *f g*, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 2d day of July, A. D. 1887.

EDWARD RIVETT.

Witnesses:
ALBAN ANDRÉN,
HENRY CHADBOURN.