

(No Model.)

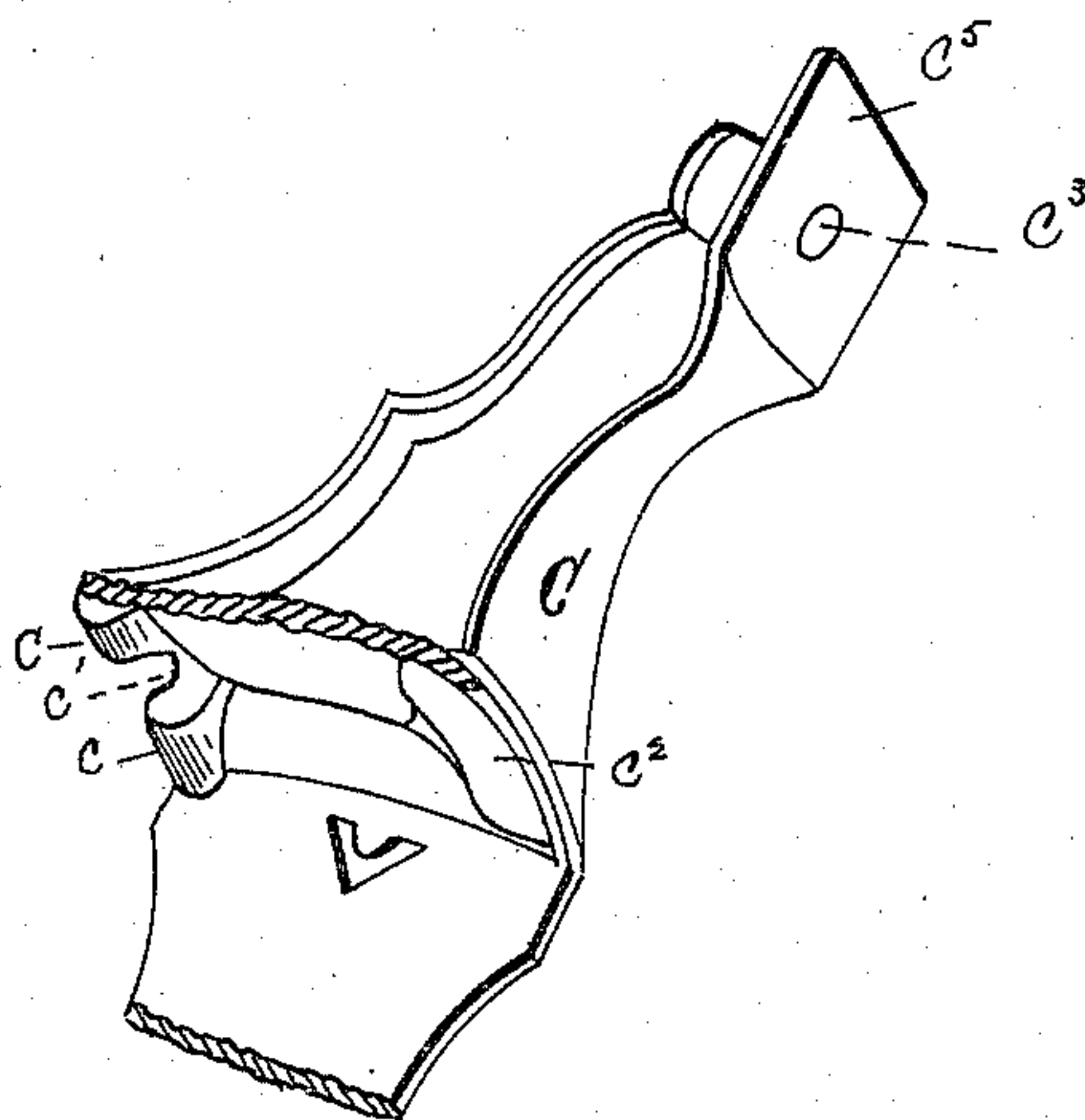
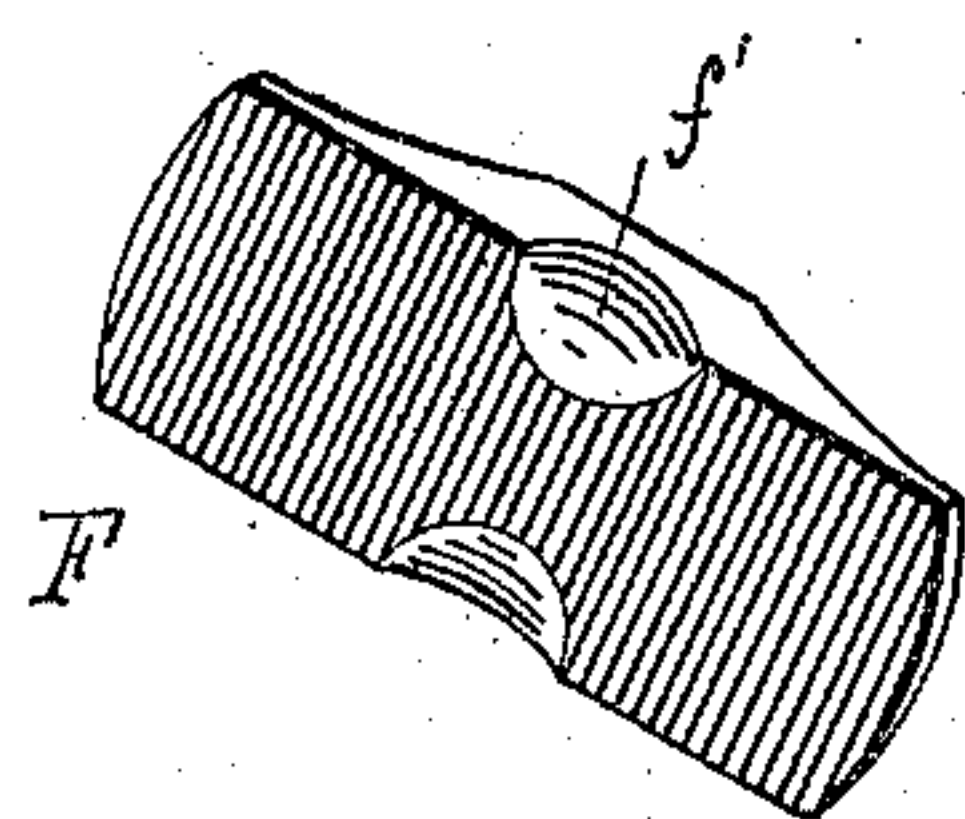
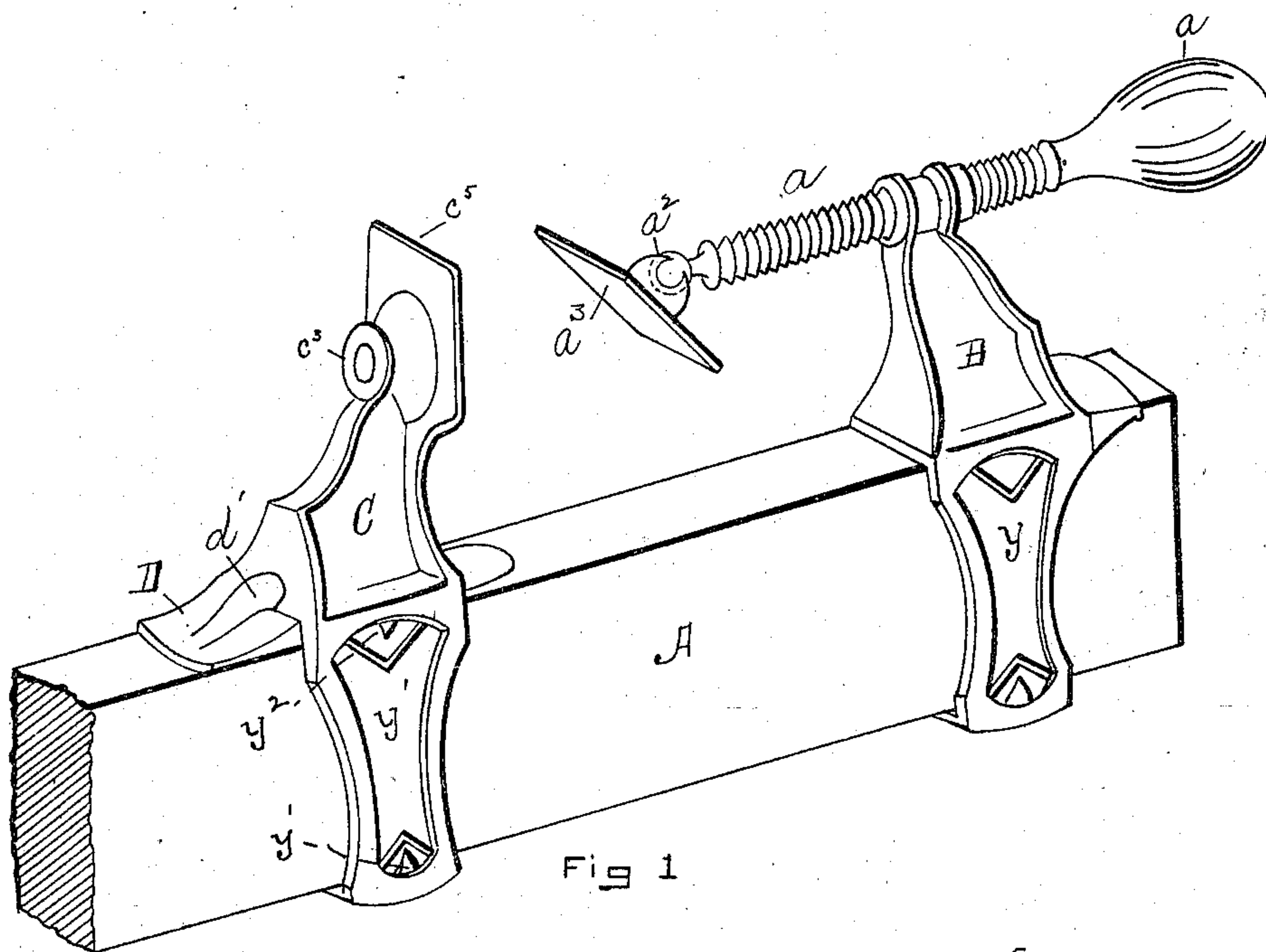
2 Sheets—Sheet 1.

W. H. DEHNÉ.

JOINER'S SET.

No. 344,033.

Patented June 22, 1886.



WITNESSES

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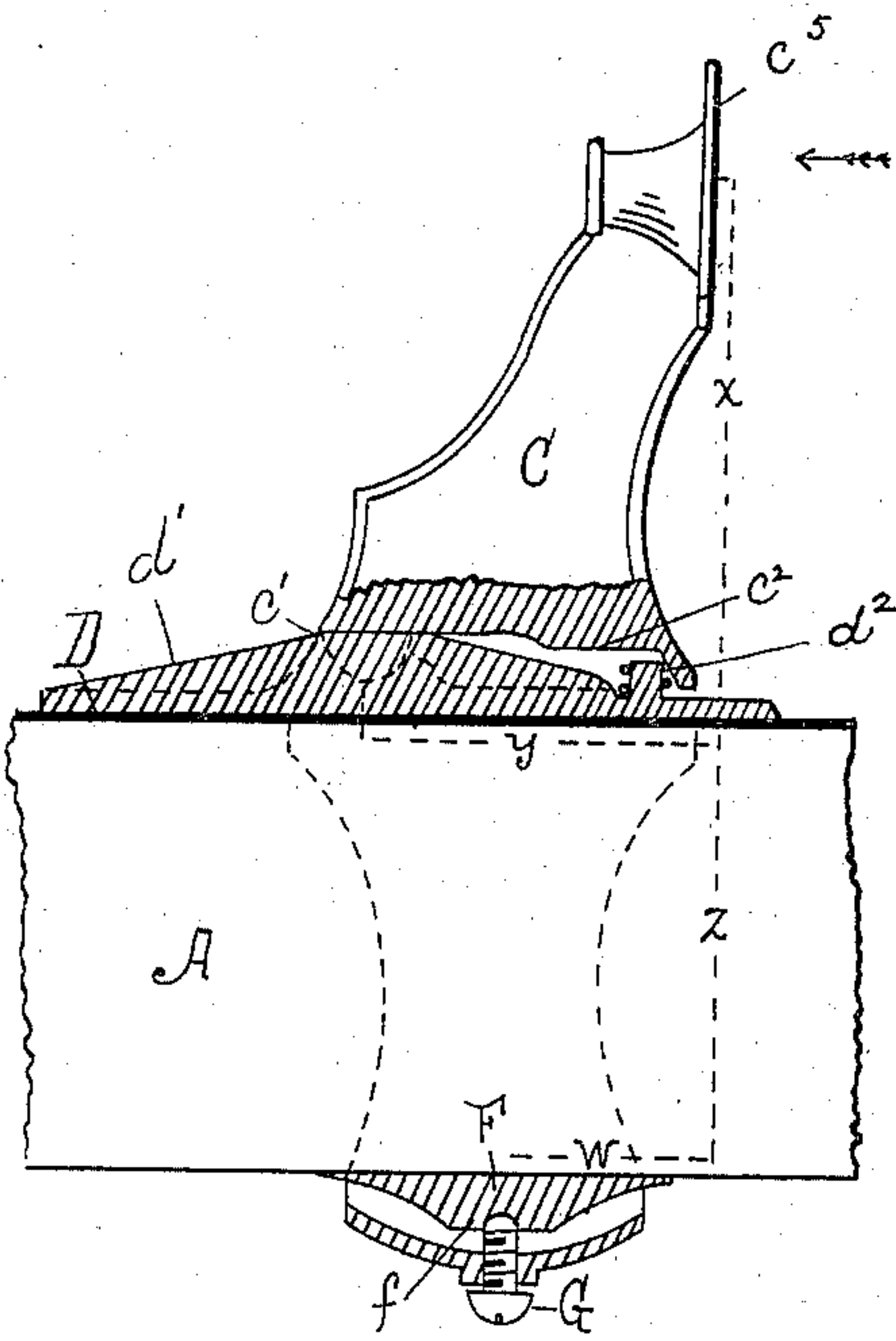


Fig 3

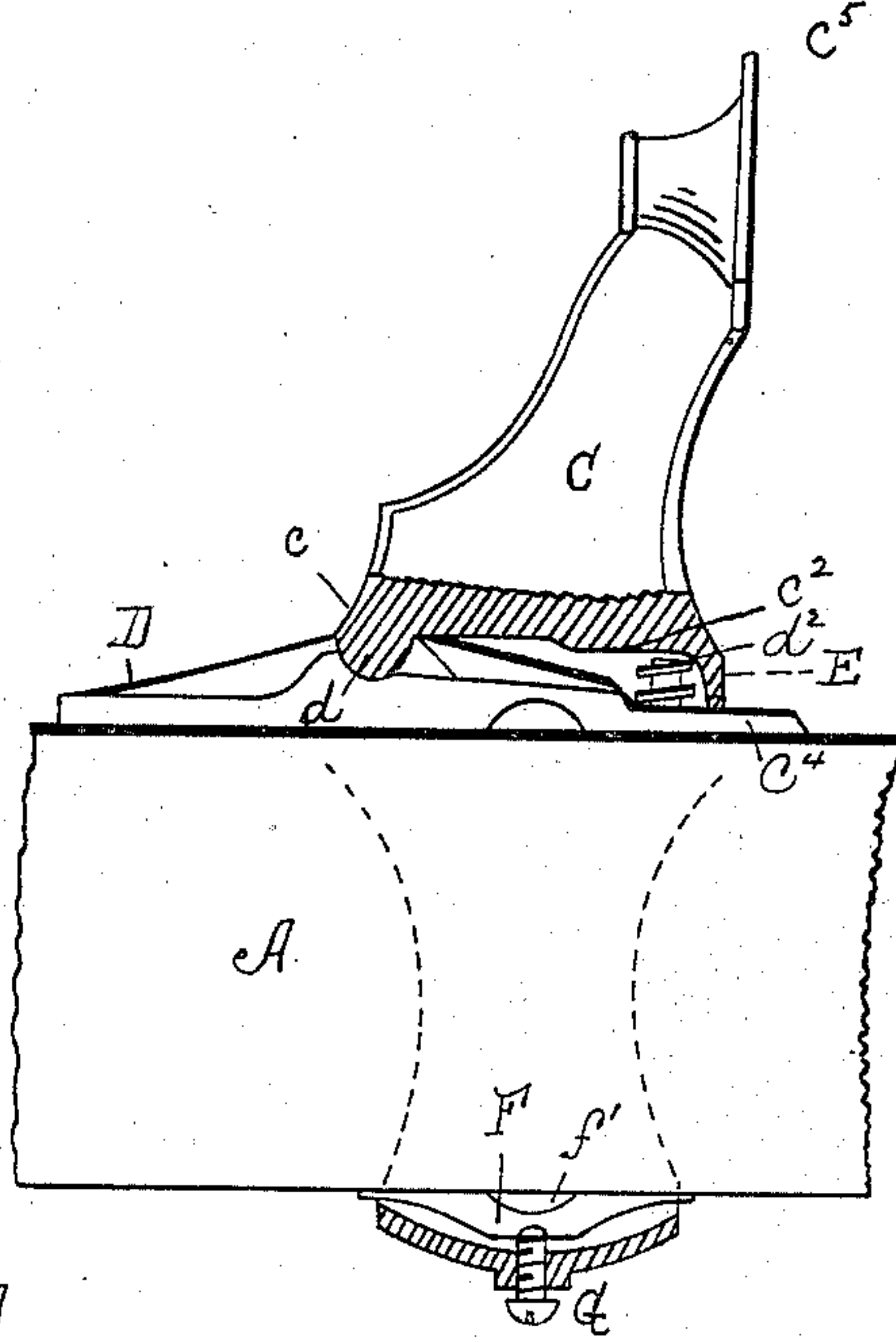


Fig 4

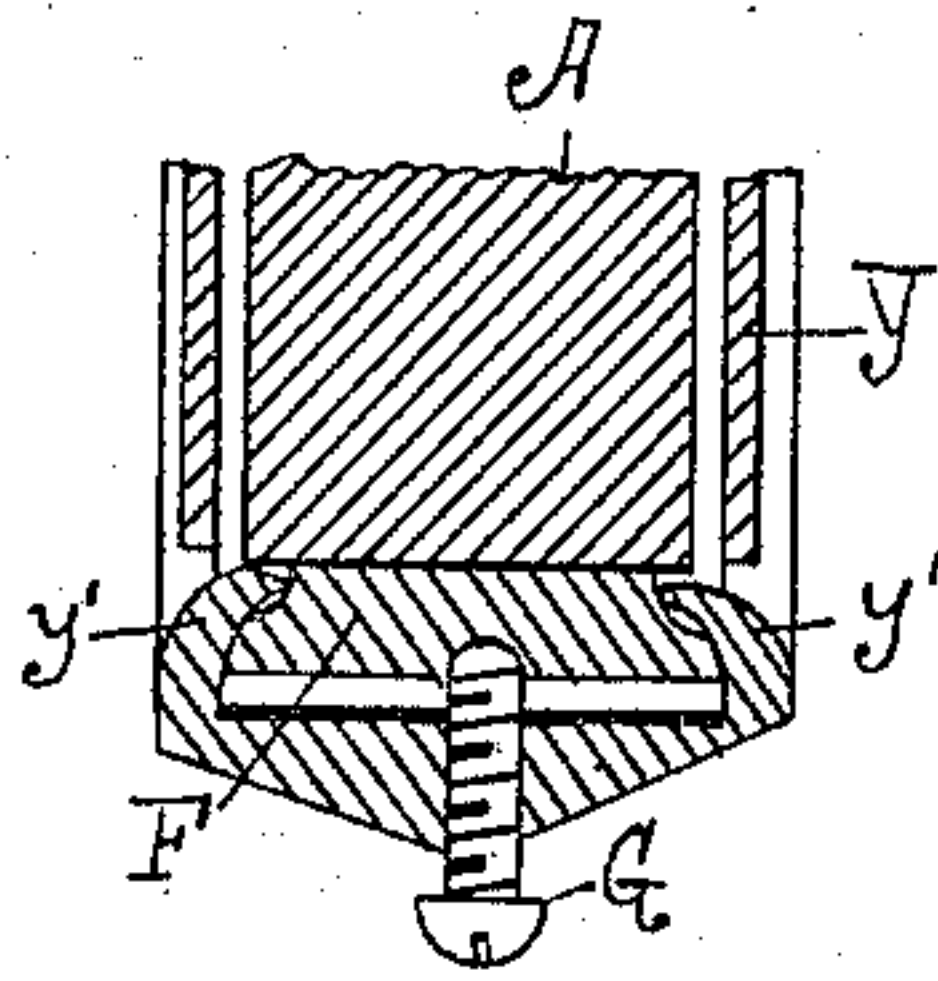


Fig 7

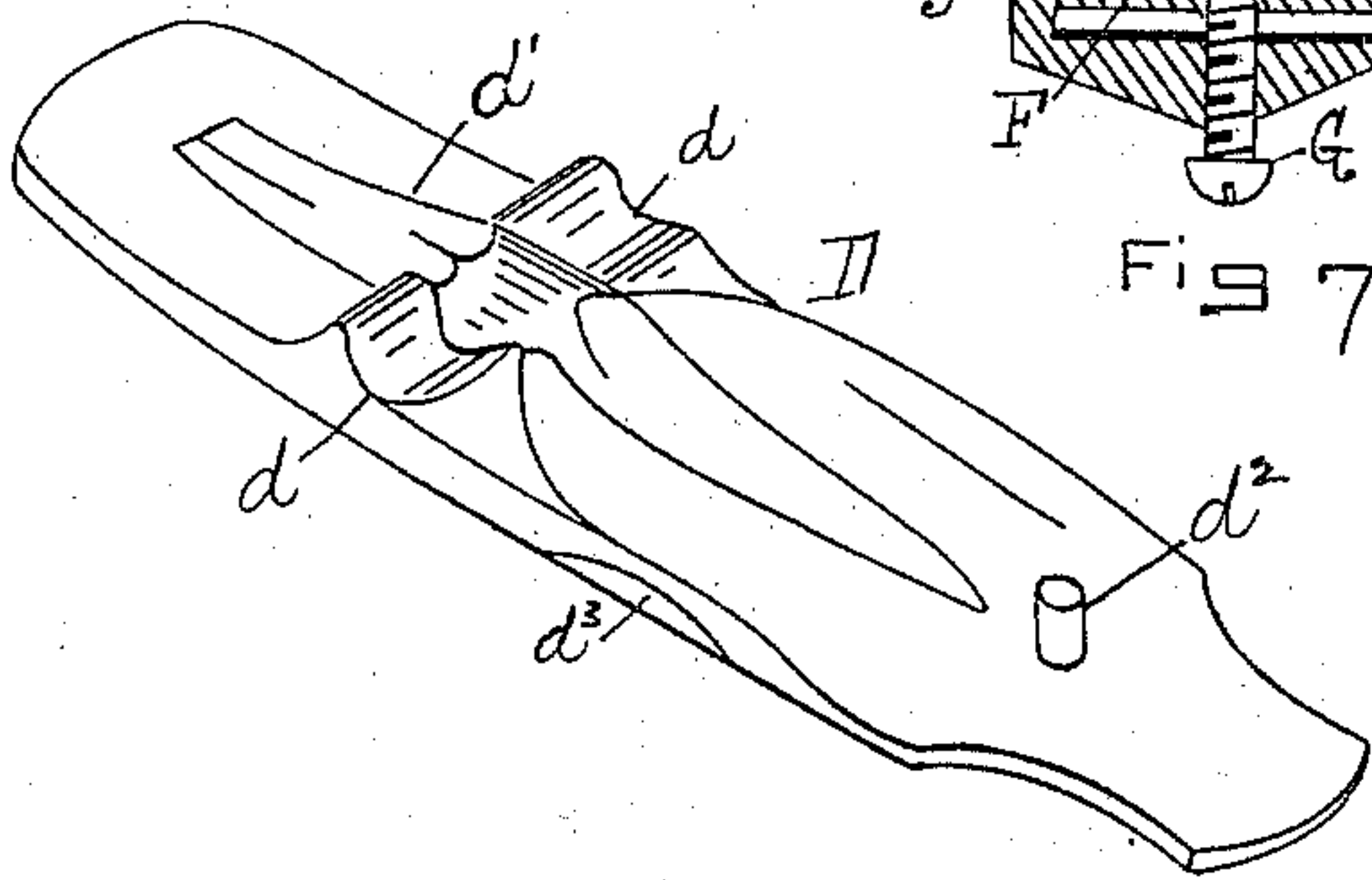


Fig 5

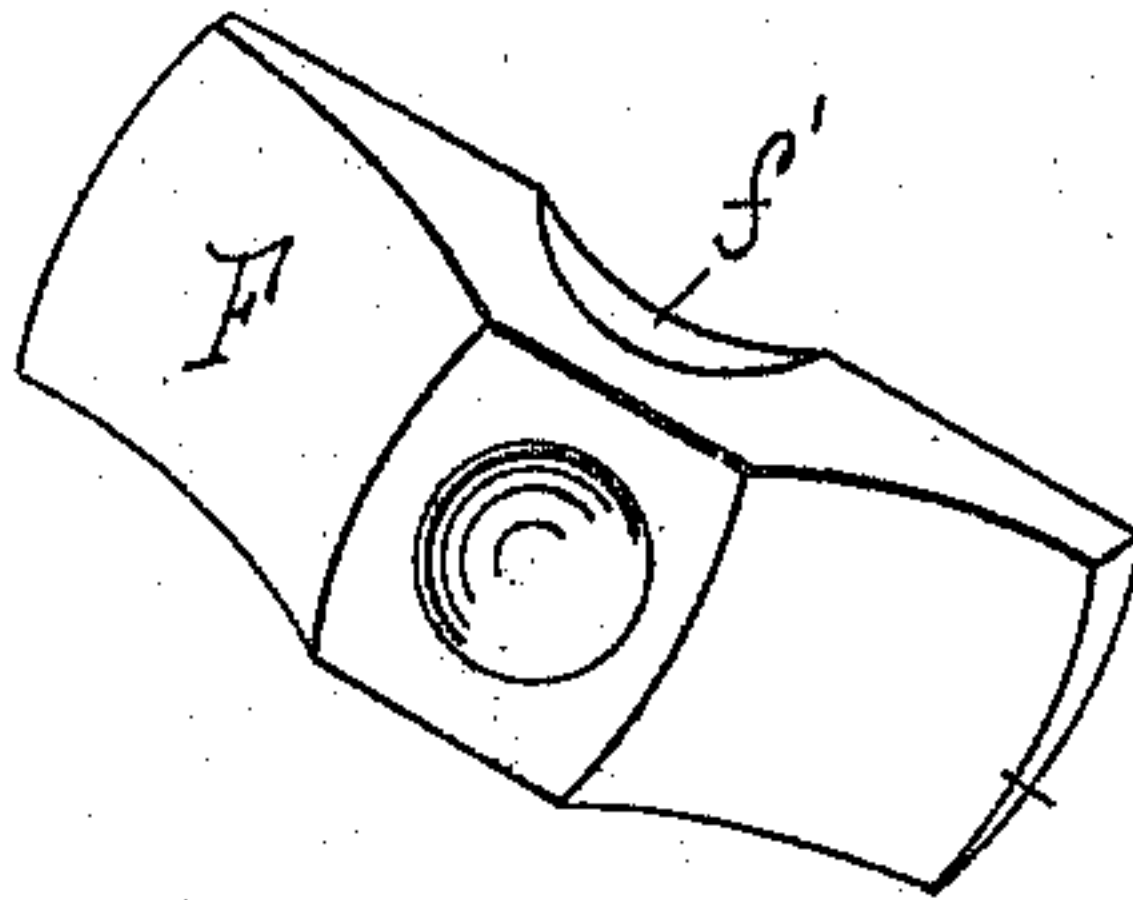


Fig 6

WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. DEHNÉ, OF CHELSEA, MASSACHUSETTS.

JOINER'S SET.

SPECIFICATION forming part of Letters Patent No. 344,033, dated June 22, 1886.

Application filed May 27, 1886. Serial No. 203,456. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DEHNÉ, a citizen of the United States, residing at Chelsea, in the county of Suffolk, and in the State of Massachusetts, have invented a certain new and useful Joiner's Set, of which the following is a true and complete specification.

My invention consists of an improvement in the set or clamping device used by joiners in setting up their work and in holding it in position while the glue is setting. In the old-style set the movable jaw is adapted to engage with notches or holes in the beam, and consequently can only be fastened at certain places upon the beam, according to the position of the holes or notches. This is a source of great inconvenience to the mechanic, for the number of holes or notches is necessarily limited, and there is small chance that the size of the piece that he is working on will correspond with the hole in his set. This necessitates screwing up by hand, and is the source of much lost time.

My object has been to provide a set which is perfectly adjustable, a set provided with a movable jaw which may be fastened in any position upon the beam, either automatically or mechanically, as shall be desired, a set which, adapted to act automatically, may be adjusted to counteract wear, shrinkage, or imperfections in the beam or other parts of the set as they may occur in use.

In the accompanying drawings, Figure 1 is a perspective view of the set. Fig. 2 is a perspective view of the adjustable jaw, partly broken away to show the arrangement of the bearings and the notch which engages with the shoe or gib. Fig. 3 is a side elevation and part section showing the adjustable jaw arranged to lock automatically. Fig. 4 is a side elevation and part section showing the adjustable jaw arranged to be locked mechanically. Fig. 5 is a perspective view of the upper shoe or gib, showing the bearings and central rib which engage with the corresponding bearings shown in Fig. 2. Fig. 6 is a perspective view of the lower gib. Fig. 7 is a sectional view of the yoke and gib, showing how the ears y' hold the gib in position. Fig. 8 is a view of the upper side of the gib, showing its face corrugated.

Similar letters refer to similar parts throughout the drawings.

Referring to the drawings, A is the beam.

B is the stationary jaw, which is provided with a hollow handle, a' , and is attached to the jaw-face a^3 by the ball-and-socket joint a^2 .

C is the adjustable jaw, which is provided with bearings c , the notch c' , and the spring-rest c^2 .

D is the upper shoe, which is provided with the bearings d , a central rib, d' , and a pin, d^2 , to carry a spring, E.

F is the lower shoe or gib, which is provided with a socket, f , by which the gib rocks on the gib-screw G.

The stationary jaw B consists of the jaw proper, E, and the yoke or sleeve Y, and is clamped to the beam by a new automatic clamp placed at the bottom of the sleeve below the beam. This consists of a gib screw, G, working on or in the socket f of a gib or shoe F. The advantage of this clamp is that the jaw can be held anywhere on the beam and quickly adjusted from a short to a long beam, and vice versa. The gib rocks on the end of the screw, and conforms to the under side of the beam, so that it will not mark or mar the beam, no matter how tightly it is clamped or screwed up. (See Figs. 3 and 4.)

The adjustable jaw C consists of the jaw proper, C, and the yoke or sleeve Y'. The sleeve Y' is provided at the bottom with a gib, F, provided with a socket, f , and with a gib-screw, G, similar to those with which the stationary jaw is provided, Figs. 3 and 4. The gib F, I preferably make with a corrugated top, as shown in Fig. 8. The adjustable jaw is also provided with an automatic locking device, as follows: The upper side of the sleeve Y' is provided with two bearings, c , Fig. 2, and a notch, c' , which are adapted to engage with the corresponding bearings, d , and central rib, d' , of the shoe D, Fig. 5. The upper side of the sleeve Y' is also provided with a spring-rest, c^2 , adapted to engage with the spring E, resting on the pin d^2 of the shoe D. This, however, is not essential.

The parts are placed in position, as shown in Figs. 3 and 4, the shoe D resting against the upper side of the beam A with the bearings d engaging with the corresponding

bearings, $c\ c$, of the yoke or sleeve Y, and the gib-screw G is screwed up, so that the whole has a slight play only, the parts being so placed and pressure being brought to bear upon the jaw-face c^b , as indicated in Fig. 3. The jaw will rock slightly upon the bearing d as a fulcrum, and, by reason of the leverage action, develops sufficient friction to lock itself automatically in place.

10 The proportion in which I preferably make the parts is as follows, referring to Fig. 3: $x=2\frac{1}{2}"$, $y=2"$, $z=2\frac{1}{4}"$, $w=1"$. Other proportions within proper limits may be used; but with the above proportions sufficient pressure

15 is exerted to lock the jaw firmly in place, but not enough to indent the beam. The spring E holds the jaw, so that it will not slide when not in use. The yoke Y' is provided with the ears $y\ y'$, which may be bent over, and so engaging with the grooves d^3 and f' in the shoe D and gib F prevent their falling out when the beam is removed.

The shoe D is provided with the central rib, d' , to give it strength, as it sustains a great

25 pressure, and would otherwise be liable to be bent thereby.

The head of the adjustable jaw C is provided with a hole, c^3 , by which a block of wood may be attached to it, and so prevent

30 its marring any nice work on which it may be used. To make the adjustable jaw act mechanically, the casting on the front of the jaw is extended, as shown at c^4 , Fig. 4, so that it will fit against the shoe, as shown in the figure, and so prevent the rocking of the jaw

35 around its bearings $c\ c$, Fig. 4. With this addition the jaw may be mechanically fastened by tightening the gib-screw G. By means of the gib-screw G the automatic jaw

40 may be adjusted to counteract shrinkage or imperfections in the beam or other parts of the set.

One of the objects of the gib F is to prevent the marring of the beam by the screw G; but the set may be made to work in a certain degree without it, in which case the bottom of the beam will bear against the end of the screw.

Having now fully described my invention, what I desire to claim, and secure by Letters Patent, is—

1. In a joiner's set, a jaw having a yoke provided with ears, as $y\ y'$, placed on each side of the yoke and bent inward, in combination with a gib or shoe, whereby the said gib or shoe is held in position when the jaw is removed from its beam, substantially as described.

2. An adjustable jaw, C, having a yoke, Y, provided at its top with bearings $c\ c$, resting in fixed fulcrum-bearings $d\ d$ in a shoe, D, and at its bottom with a gib, F, pivoted in a socket, f , on an adjustable screw, G, in combination with a beam, substantially as described.

3. An adjustable jaw, C, having a yoke, Y, provided at its top with bearings $c\ c$, resting in fixed fulcrum-bearings $d\ d$ in a shoe, D, in combination with a beam, substantially as described.

4. An adjustable jaw, C, having a yoke, Y, provided at its bottom with a gib, F, pivoted in a socket, f , on an adjustable screw, G, in combination with a beam, substantially as described.

In witness whereof I have hereunto set my hand.

WILLIAM H. DEHNÉ.

Witnesses:

WM. B. H. DOWSE,
M. W. MARSTON.