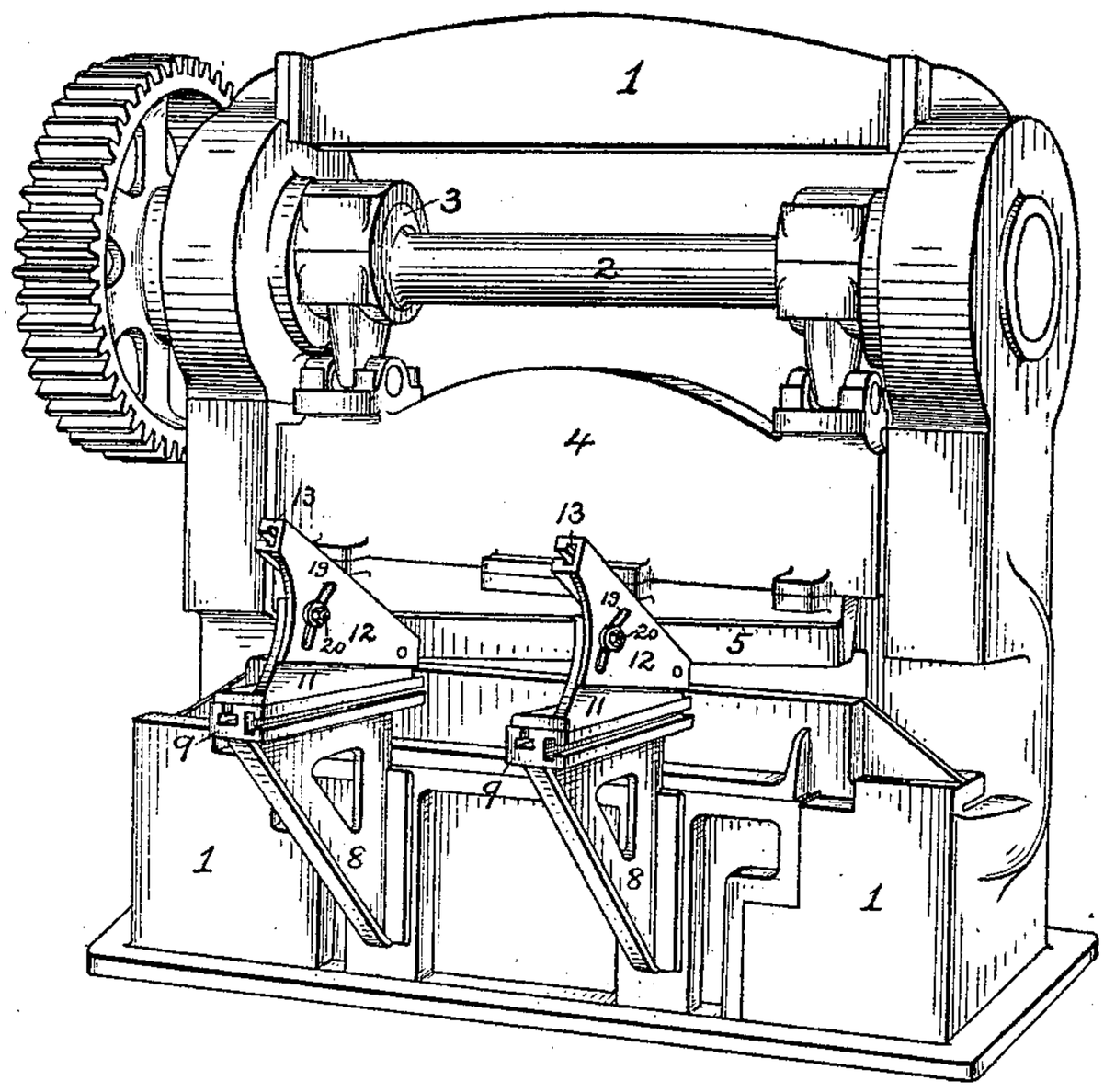
(No Model.) 2 Sheets—Sheet 1.

H. C. JONES.

BEVEL SHEARING MACHINE.

No. 568,256. Patented Sept. 22, 1896.

FIG. 1.



Witnesses:
Ernest Hafer
Fred L. Benner

Inventor:
Henry C. Jones
by his Attorneys
Howson & Howson

(No Model.) 2 Sheets—Sheet 2.

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FIG. 4.

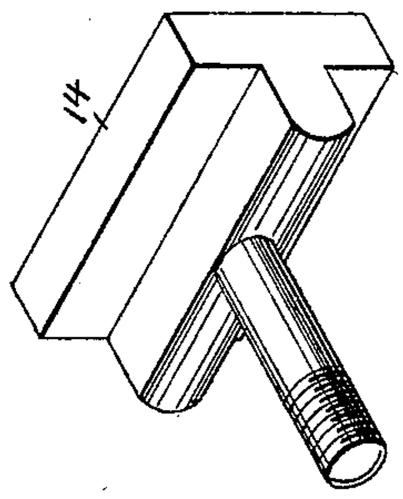


FIG. 5.

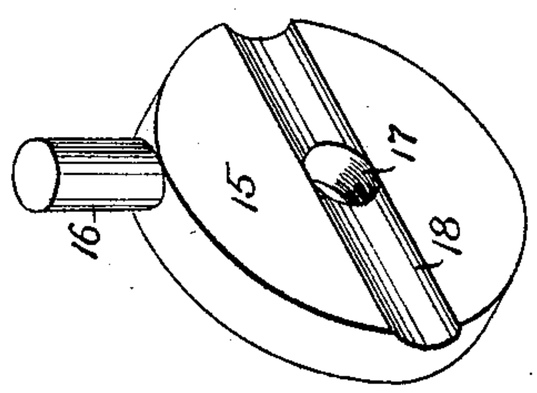


FIG. 6.

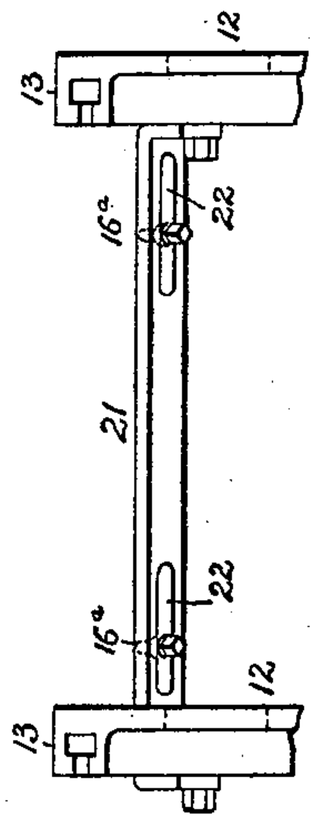


FIG. 3.

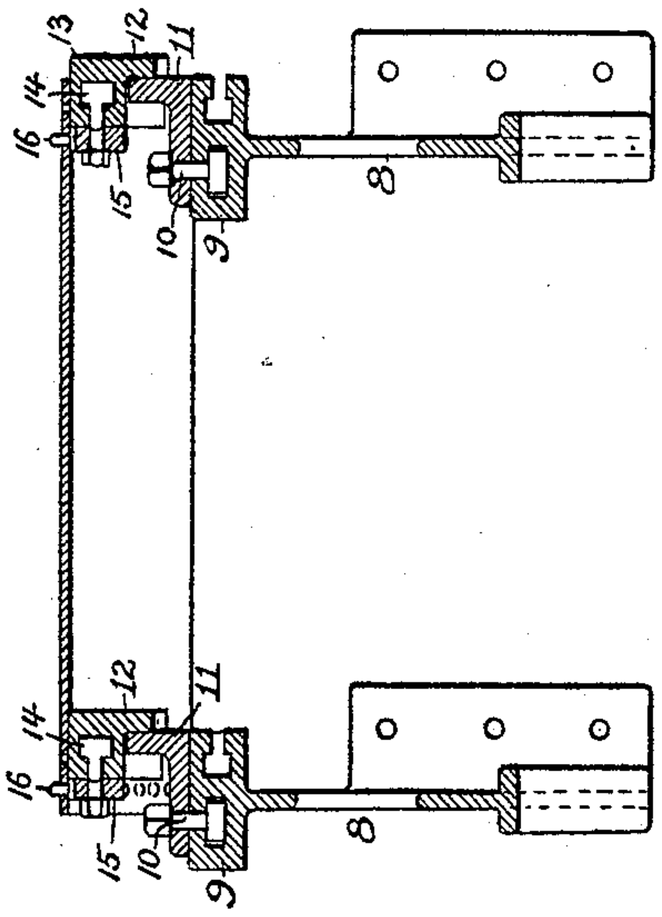
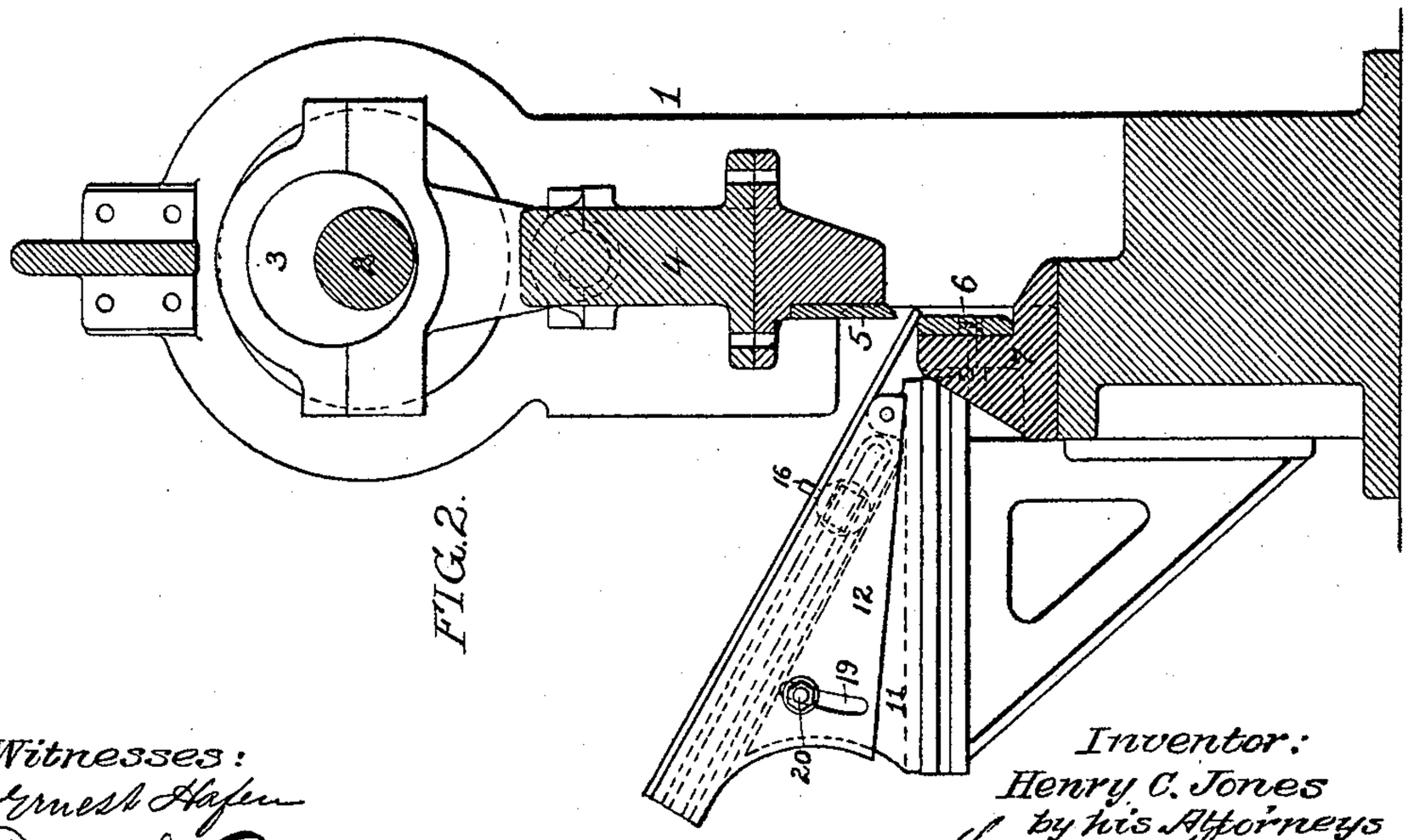


FIG. 2.



Witnesses:
Ernest Hafen
Fred b. Benner

Inventor:
Henry C. Jones
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

HENRY C. JONES, OF WILMINGTON, DELAWARE, ASSIGNOR TO THE HILLES & JONES COMPANY, OF SAME PLACE.

BEVEL-SHEARING MACHINE.

SPECIFICATION forming part of Letters Patent No. 568,256, dated September 22, 1896.

Application filed December 3, 1895. Serial No. 570,926. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. JONES, a citizen of the United States, and a resident of Wilmington, Delaware, have invented certain Improvements in Bevel-Shearing Machines, of which the following is a specification.

The object of my invention is to provide an ordinary shearing-machine with an attachment whereby the edges of the sheets may be accurately beveled, one feature of the invention being a provision whereby the angle of the bevel may be varied as desired.

In the accompanying drawings, Figure 1 is a perspective view of a shearing-machine with beveling attachment constructed in accordance with my invention. Fig. 2 is a transverse section of the machine on a larger scale. Fig. 3 is a longitudinal section of the plate-supporting device. Figs. 4 and 5 are enlarged perspective views of parts of the same, and Fig. 6 is a view illustrating a special form of the plate-supporting device.

So far as the shearing mechanism is concerned the machine is constructed in a manner similar to those in common use, the fixed frame of the machine being represented at 1, and this frame having in the upper portion bearings for the shaft 2, which has eccentrics 3, whereby a vertical reciprocating motion is imparted to the cross-head 4, which is suitably guided in bearings at the opposite ends of the machine and carries the upper shearing-blade 5, the fixed shearing-blade 6 being carried by a bed plate or block 7 on the base of the machine.

To the front of the machine are secured brackets 8, having top flanges 9 with T-shaped slots therein, and to these T-shaped slots are adapted bolts 10, which serve to secure in place the base-flanges of frames 11, the vertical webs of these frames being tapered, that is to say, being widest at the outer ends and narrowest at the inner ends or ends adjacent to the shearing-blades.

Pivoted to the frames 11 at their inner ends are tables 12, which are slotted, as at 13, for the reception of T-headed bolts 14, whereby disks 15 are secured to said tables. The tables 12 may be connected together in some instances to form a single table, or more than two tables may be used where the plates to be sheared are of great length.

From the disks 15 project pins 16, which are adapted to rivet-holes formed near the opposite edges of the plate to be sheared, these rivet-holes having been previously formed in the plate and being intended for the reception of rivets whereby the plates are secured together to form pipes or other structures for which the plates are intended, the beveling of the edges of the plates being for the purpose of facilitating the calking of said edges of the plates after the same have been riveted together to produce the pipe or other structure.

The T-head of each of the bolts 14 is considerably wider than the threaded stem or shank of the bolt, as shown in Fig. 4, and each of the disks 15 has formed in it, besides the opening 17 for the reception of the stem of the bolt, a transverse groove or recess 18 for the reception of the outer portion of the projecting web of the T-head of the bolt 14, so that any twisting or turning of the disk 15 on the bolt is effectually prevented and the pins 12 are rigidly held in proper relation to the slotted portions 13 of the tables 12.

The pins 16, when applied to the rivet-holes in the plate to be sheared, serve as dowel pins or gages and insure the proper alinement of the plate, so that the sheared edge of the same will be at right angles to the line of rivet-holes.

The tables 12 are preferably provided with segmental slots 19, concentric with the pivots of said tables and adapted for the reception of bolts 20, carried by the frames 11, these bolts being provided with nuts which when loosened permit the adjustment of tables 12 to any desired angle, the tightening of the nuts securing the tables at such angle. By this means the angle of the beveled cut made by the shearing-blades 5 and 6 can be varied as desired.

When it is desired to effect the shearing of plates narrower than the space between the tables 12, I secure to said tables, by means of bolts 14, a transverse bar 21, as shown in Fig. 6, this bar having longitudinal slots 22 for the reception of the stems of adjustable

dowel or stop pins 16ª, the shanks or stems of these dowel-pins passing through the slots 22 and being provided with suitable nuts whereby said pins may be secured in position after adjustment, the device being thus adapted for the proper support of plates of any width likely to be found in practice and narrower than the space between the tables 12.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The within-described beveling attachment for shearing-machines, the same comprising slotted brackets projecting from the frame of the machine at right angles to the longitudinal line of the shear-blade, and tables having portions bolted to said slotted brackets, said tables having inclined upper edges and carrying dowel-pins for engagement with rivet-holes in the plate to be sheared, substantially as specified.

2. The combination of a shearing-machine having a vertically-reciprocating shear-blade operating in conjunction with a stationary shear-blade detachably secured to the bed-plate of the machine, with a beveling attachment consisting of pivoted tables projecting at right angles to the longitudinal line of the shear-blade and carrying dowel-pins for adaptation to rivet-holes in the plate to be sheared, and means for adjusting said pivoted tables so as to vary the angle of the plate to be sheared, substantially as specified.

3. The combination in a beveling attachment for shearing-machines, of the tables having slotted ribs at their upper edges, T-headed bolts adapted to said slots, and dowel-pin carriers having grooves or recesses for the reception of the T-heads of the bolts, substantially as specified.

4. The combination in a beveling attachment for shearing-machines, of tables having their upper edges extending at right angles to the shear-blades and inclined in respect to the horizontal, a transverse bar secured to said tables, and stop-pins adapted to engage with said bar and with rivet-holes in the plate to be sheared, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY C. JONES.

Witnesses:
JOS. H. KLEIN,
FRANK BECHTOLD.