(No Model.)

J. G. JACKSON.

DIE STOCK.

No. 504,084. Patented Aug. 29, 1893.

Fig: 1.

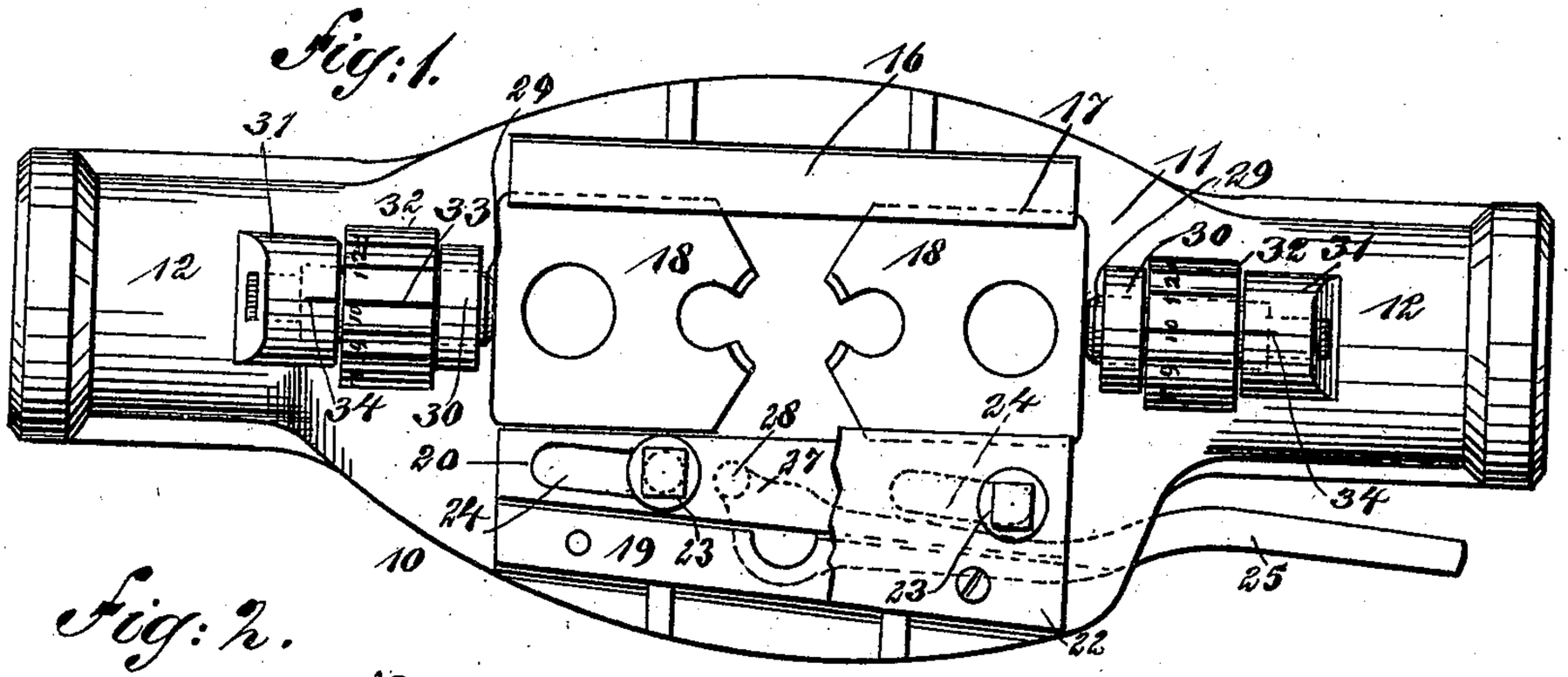

Fig: 2.

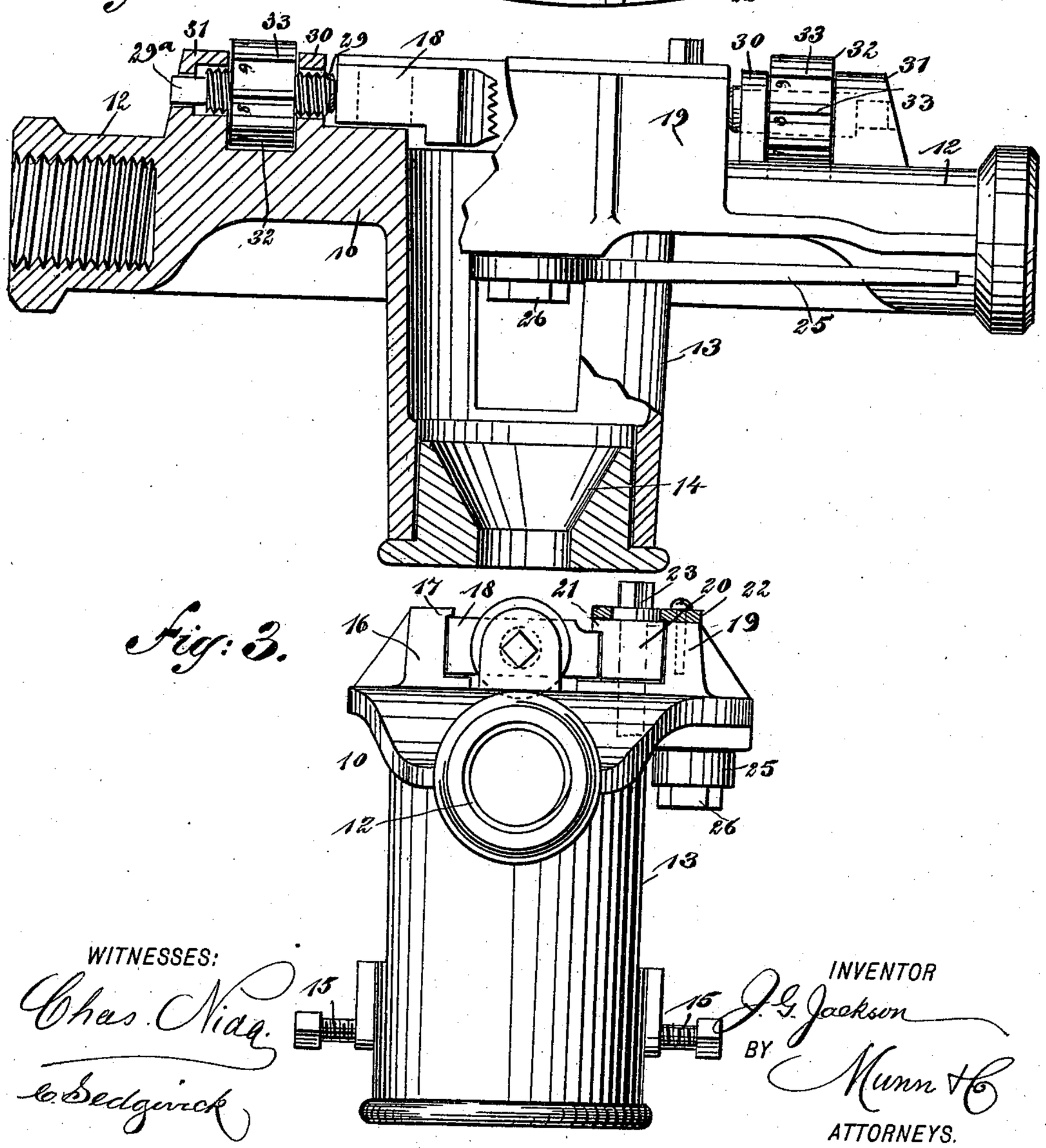

Fig: 3.

WITNESSES:

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JOEL G. JACKSON, OF MINNEAPOLIS, MINNESOTA.

DIE-STOCK.

SPECIFICATION forming part of Letters Patent No. 504,084, dated August 29, 1893.

Application filed July 6, 1892. Serial No. 438,998. (No model.)

To all whom it may concern:

Be it known that I, JOEL G. JACKSON, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and Improved Die-Stock, of which the following is a full, clear, and exact description.

My invention relates to improvements in die stocks such as are used for holding thread cutting dies; and the object of my invention is to produce a simple and durable stock which is adapted to hold the dies firmly in position, which is constructed so that the dies may be easily and instantly inserted or removed, and which is provided with an accurate adjusting mechanism by which the dies may be set to cut any desired size of thread within reasonable limits.

To this end my invention consists in certain features of construction and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken plan view of the die stock embodying my invention with a pair of thread cutting dies in position therein. Fig. 2 is a broken side elevation, partly in section; and Fig. 3 is an end view of the stock.

The die stock 10 is of the same general shape as ordinary die-stocks, it having a flat top face 11 to carry the dies, end lugs or arms 12 which are hollow and screw-threaded so as to receive suitable handles, a lower hollow cylindrical portion 13 arranged centrally in the stock, and a centering guide 14 held by set screws 15 in the lower end of the part 13. The above construction is common to die stocks and forms no part of my invention.

On the top of the die stock and on one side is a lug 16 which has at its inner upper edge an inwardly projecting flange 17 which is adapted to overlap the dies 18 and prevent them from being pushed out of place when the stock is used. The dies 18 are of the usual kind. On the outside of the stock top and nearly parallel with the lug 16 is another lug 19, and between this and the dies is a longitudinally and laterally movable wedge 20 which, by being forced between the dies and the lug 19, holds the dies securely in place, and the wedge has a flange 21 which overlaps the top of the dies and assists in holding them in place. A face plate 22 is secured to the lug 19 and overlaps the wedge 20, and extending downward through the face plate are broad headed screws 23 which project through slots 24 in the wedge 20 and are screwed into the body of the stock. These slots 24 extend nearly longitudinally of the wedge 20, near its ends, and are parallel with the inclined side of the wedge. The wedge is actuated by a lever 25 which swings in a horizontal direction and is fulcrumed on a stud 26 beneath the overhanging portion of the stock top, and this lever has a short end 27 projecting beyond its fulcrum and terminating in a stud 28 which engages the wedge 20. It will be seen then that by throwing the free end of the lever 25 outward and forward, the wedge 20 will be moved backward and outward, so as to free the dies 18, and by swinging the lever into a position nearly parallel with the arms 12, as shown in Fig. 1, the wedge will be thrown forward and forced between the lug 19 and dies 18, thus binding the latter firmly in place. It is obvious that this movement may be effected instantly, but I do not confine myself to the precise mechanism for moving the wedge, as it will be understood that other equivalent means may be employed. The dies 18 are adjusted lengthwise so as to cut the right size of thread by means of the bolts 29 which are arranged at the ends of the dies and longitudinally of the dies and the die stock, the bolts having their inner ends held to turn freely and loosely in lugs 30, as shown in Fig. 2, and their outer ends 29^a squared and held in lugs 31 so as to prevent them from turning.

Threaded upon the bolts are nuts 32, of circular cross section, these nuts having milled edges to enable them to be easily turned, and the nuts are held between the lugs 30 and 31 and when turned they will cause the bolts 29 to be moved in and out. The nuts 32 are divided into equidistant spaces by longitudinal lines 33, there being ten lines which are numbered from 0 to 9, but this arrangement is arbitrary and any number of lines and numbers may be used. The lines are adapted to register with a single longitudinal line 34

which is produced on each of the lugs 31. The lines and nuts are adjusted so that by turning the nuts a distance of one line or space, they will advance or retract the dies 18 so as to make the desired change in the size of a thread. For instance, we will suppose that when the 0 lines 33 register with the lines 34, as in Fig. 1, the dies are adjusted to cut a standard thread and that there are twenty threads to an inch on the bolts 29, and ten spaces on the nuts 32. It will be seen then that if the nuts are turned to 1 or 9, that is, until these parts register with the lines 34, a thread exactly one two-hundredth of an inch over or under the standard would be cut, and by this principle any accurate adjustment wanted may be quickly obtained.

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

1. A die stock provided with lugs or ribs, one of which is inclined, a longitudinally and laterally movable wedge having an inclined side engaging the inclined rib and a straight side parallel with the other rib and adapted to clamp both dies laterally thereagainst and adjusting screws for the ends of the dies, substantially as set forth.

2. A die stock provided with lugs or ribs, one of which is inclined, a slotted wedge having an inclined side engaging the inclined rib and a straight side parallel with the adjacent face of the other rib and adapted to clamp both dies laterally thereagainst, bolts extending through the wedge slots into the stock and adjusting screws for the ends of the dies, substantially as set forth.

3. A die stock having lugs or ribs upon its face, one of which is inclined in relation to the other, the ribs being adapted to hold dies between them, a longitudinally and laterally movable wedge held between the inclined lug and the dies, and a lever for adjusting the wedge, substantially as described.

4. A die stock having lugs or ribs upon its face adapted to hold dies between them, one lug being straight and having an overhanging flange on its inner side to cover the dies and the other lug being inclined, and a longitudinally and laterally movable wedge held between the inclined lug and the dies, the wedge having an overhanging flange on its inner upper edge, substantially as described.

5. A die stock having lugs upon its upper face adapted to hold dies between them, one lug being straight and having an overhanging flange on its inner edge and the other being inclined, a wedge held to move longitudinally and laterally between the inclined lug and the dies carried by the stock, a face plate secured to the inclined lug and overlapping the wedge, limiting screws extending through the face plate and into the stock body, the screws extending through hollow slots in the wedge, and a lever for moving the wedge, substantially as described.

JOEL G. JACKSON.

Witnesses:
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