June 19, 1934. J. STATZ 1,963,064

ADJUSTABLE DIE HOLDER

Filed March 21, 1933

Fig. 1.

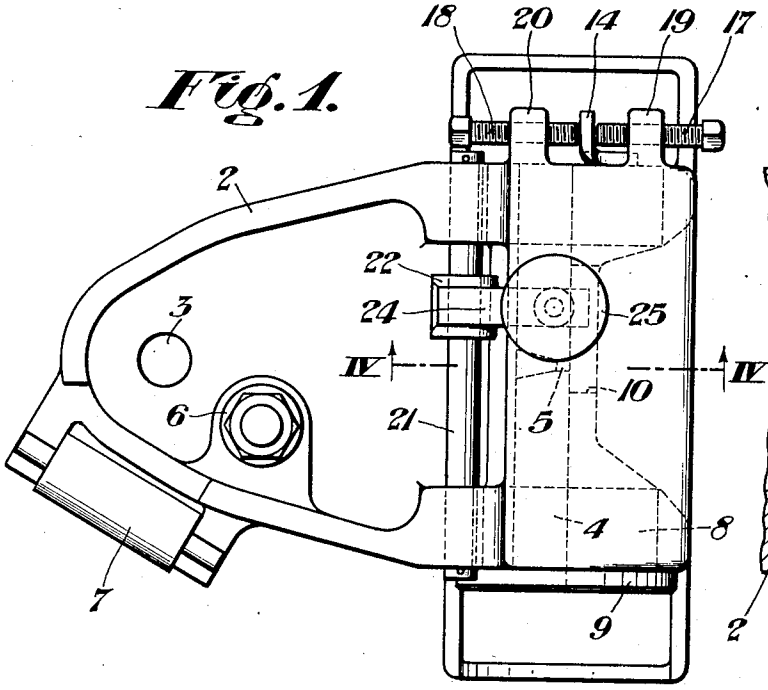


Fig. 3.

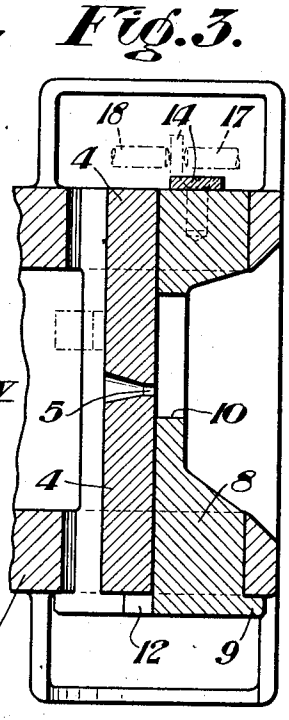


Fig. 2.

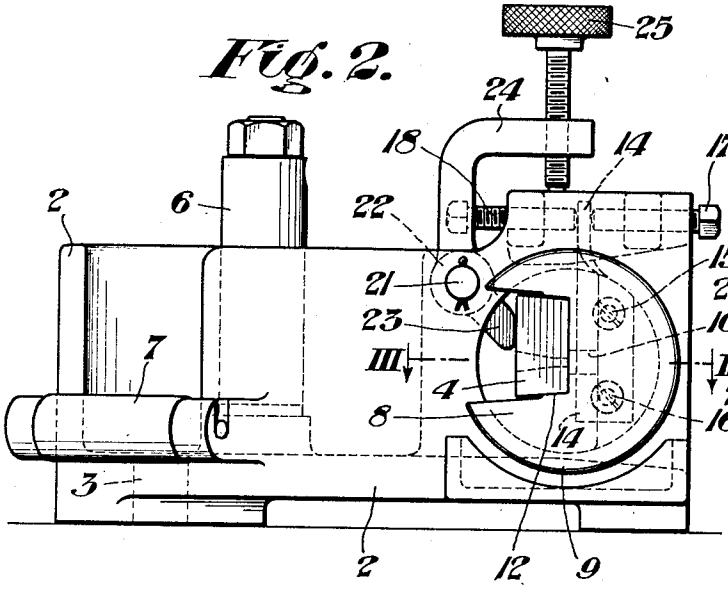
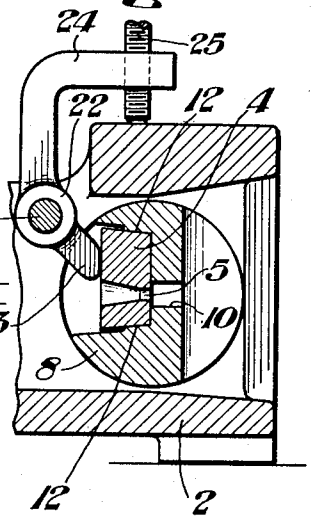


Fig. 4.



Inventor:
JOHN STATZ,
by: Masius & Rauber
his Attorneys.

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ADJUSTABLE DIE-HOLDER

John Statz, Worcester, Mass., assignor to The American Steel and Wire Company of New Jersey, a corporation of New Jersey

Application March 21, 1933, Serial No. 661,981

3 Claims. (Cl. 205—25)

This invention relates to improvements in adjustable die-holders, and more particularly to those used in wire drawing operations.

In the manufacture of wire to be used for springs, wire forms, and similar products, it is desirable that the same be of the "dead cast" type. That is to say, it should be cast without lateral deflection in order that a complete turn of wire, when removed from the wire drawing block and supported in a vertical position with the two ends at the lowest point would have a center line or axis of the wire in the same vertical plane.

One object of the present invention is to provide a novel adjustable die-holder for placing a wire drawing die and its aperture in a predetermined true horizontal, in order to obtain "dead cast" wire.

Another object is to provide a novel die-holder with accurate means for horizontally adjusting the position of the die, together with means for holding the same in its adjusted position.

These and further objects will appear after referring to the drawing, in which:

Figure 1 is a plan of the apparatus of the invention.

Figure 2 is an end elevation thereof.

Figure 3 is a sectional view taken on the line III—III of Figure 2.

Figure 4 is a sectional view taken on the line IV—IV of Figure 1.

Referring more particularly to the drawing, the numeral 2 designates the novel die-holder frame of the invention, which is provided with an aperture 3 for pivotally mounting the same on a wire drawing bench.

In accordance with conventional practice, wire is drawn through a wire drawing die 4, which is provided with the usual aperture 5, and directed around a vertical roll 6 and a horizontal roll 7, after which it is coiled on a rotating drawing block.

The novel die-holder of the invention is designated at 8, and is journaled at its ends in the flanges of the die-holder frame 2. The die-holder 8 is provided with a flange 9 for restricting the same from lateral movement, and a recess 12 for accommodating a conventional wire drawing die 4. The die-holder 8 is further provided with an elongated aperture 10 for wire which is to be directed through the aperture 5 in the die. An adjusting lever 14 is secured to one of the journaled ends of the die-holder 8 by means of screws 15 and 16, and suitable setscrews 17 and 18 are threaded through ears 19 and 20, which are formed integral with the die-holder frame 2. The screws 17 and 18 are adapted to maintain the lever 14 in adjusted position.

A rod 21 is journaled in the flanges of the die-holder frame 2. The die clamp of the invention comprises a sleeve 22 which is journaled on the rod 21, an extension 23 on the sleeve 22 for engaging the die, and an upper extension 24 through which there is threaded a clamping screw 25 which is adapted to make contact with the top of the die-holder frame 2.

In operation, a wire drawing die 4 is fitted within the recess 12 in the die-holder 8 with the aperture 5 in the die in alinement with the elongated aperture 10 in the die-holder. The wire drawing die 4 is made to assume a true horizontal position by means of the adjusting lever 14, which rotates the die-holder 8. The adjusting lever 14 is maintained in position by means of the screws 17 and 18 and the die clamped in its adjusted position by means of the clamping screw 25, which forces the extension 23 in contact with the die.

While I have shown and described one specific embodiment of my invention, it will be understood that I do not wish to be limited exactly thereto, since various modifications may be made without departing from the scope of my invention, as defined in the following claims.

I claim:

1. In combination with a wire drawing die-holder frame, a die-holder journaled in said frame, a lever for adjusting said die-holder, setscrews for maintaining said lever in adjusted position, a shaft journaled in said die-holder frame, and a clamp journaled on said shaft and adapted to hold a wire drawing die in said holder.

2. In combination with a wire drawing die-holder frame, a die-holder journaled in said frame, said die-holder having an aperture and a die recess, a shaft journaled in said frame, a clamp journaled on said shaft and adapted to hold a wire drawing die in said recess, a lever for rotating said die-holder in order to position the aperture in said wire drawing die in true horizontal position to permit of the entrance of the wire being drawn, and means for maintaining said lever in adjusted position.

3. In combination with a wire drawing die-holder frame, a die-holder journaled in said frame, means for preventing the lateral displacement of said die-holder relative to said wire drawing frame, said die-holder having an elongated aperture and a die recess, a lever for rotating said die-holder relative to said frame, means for locking said lever against movement, a shaft journaled in said frame, and means pivotally mounted on said shaft for holding a wire drawing die in said recess and with its aperture in alinement with the aperture in said die-holder.

JOHN STATZ.