(No Model.)

A. P. BALDWIN & R. HADFIELD.

DEVICE FOR DRAWING WIRE RODS.

No. 393,808. Patented Dec. 4, 1888.

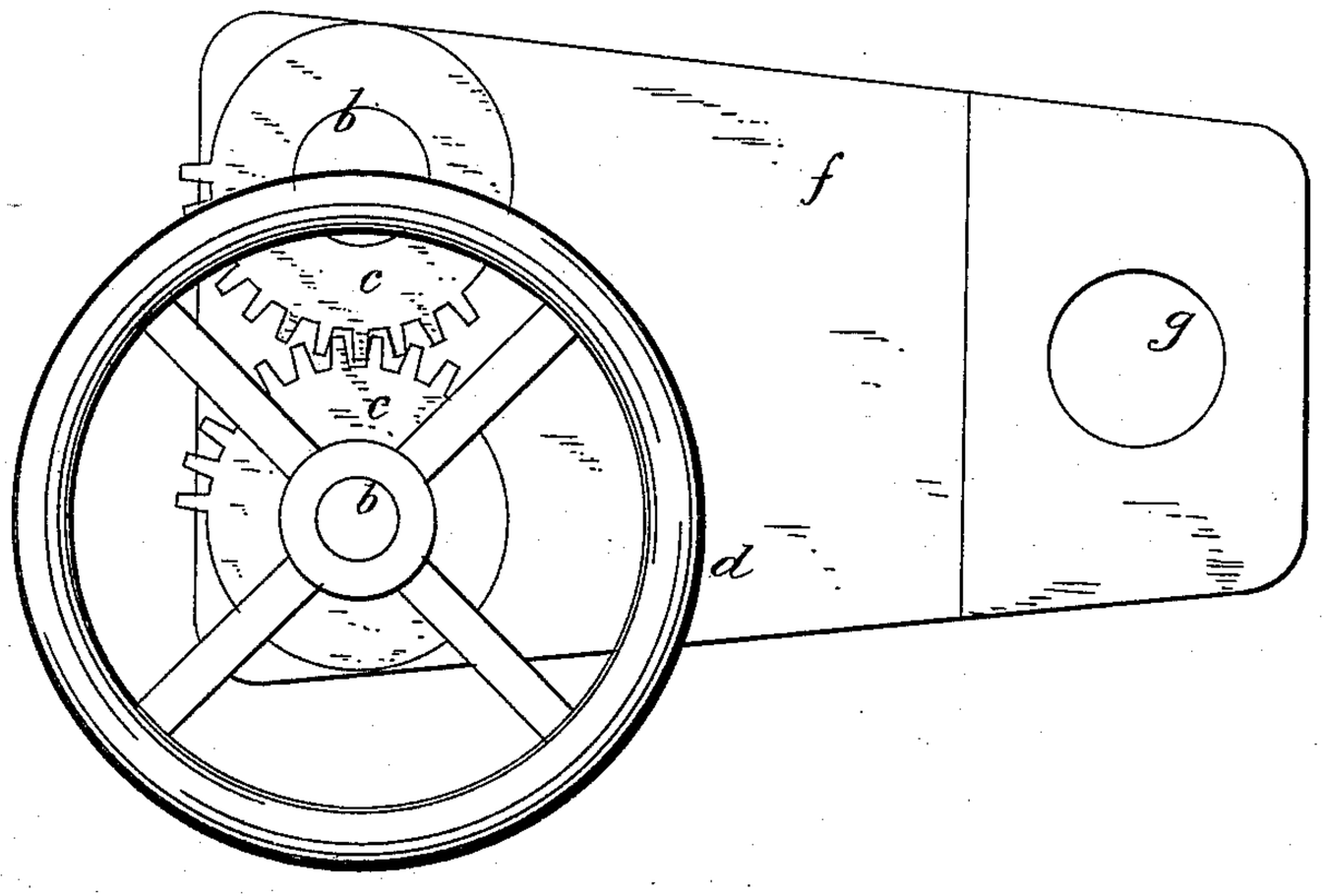


Fig. 1.

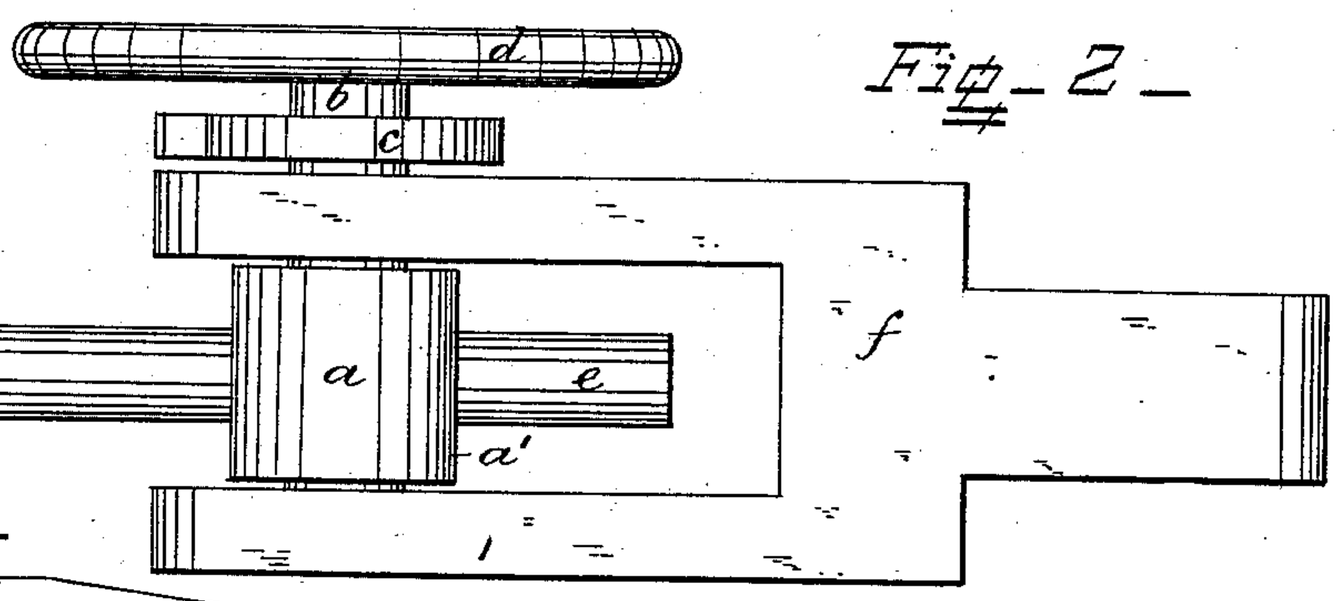


Fig. 2.

Fig. 3.

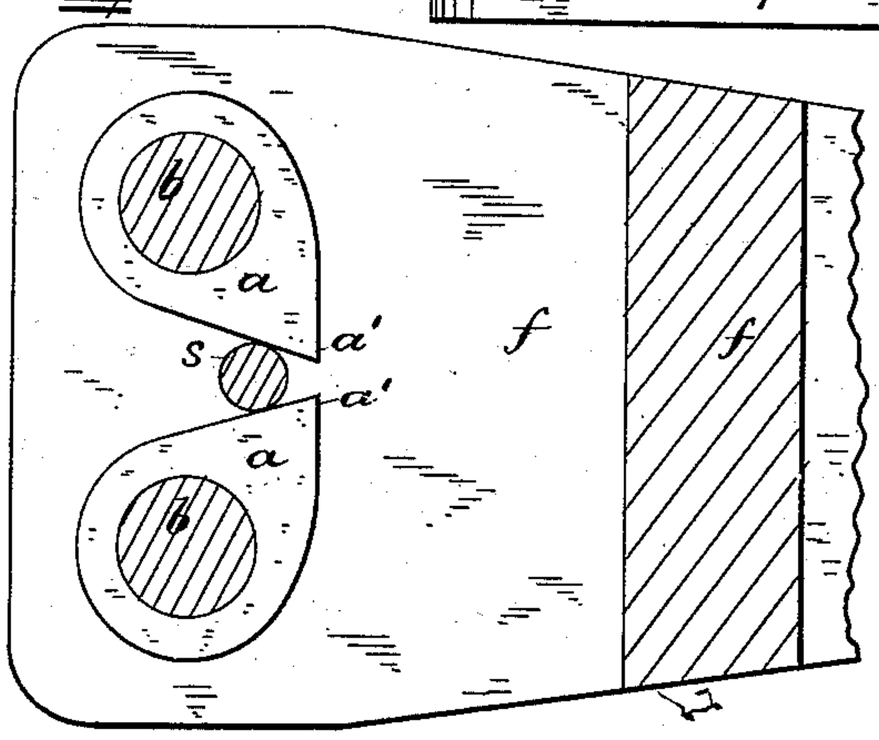
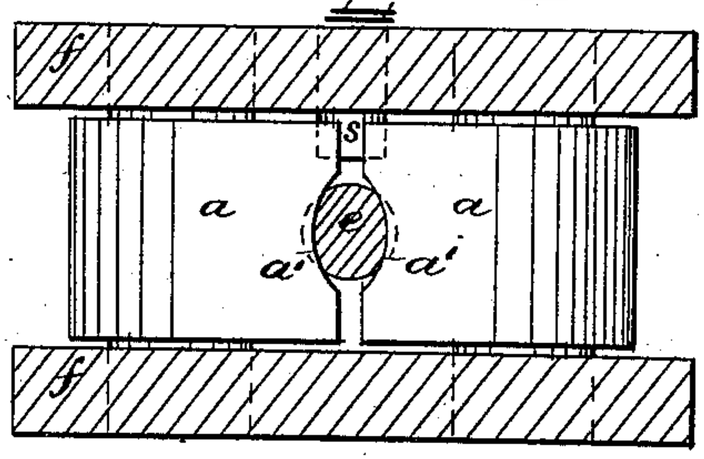


Fig. 4.



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UNITED STATES PATENT OFFICE.

AARON P. BALDWIN AND REUBEN HADFIELD, OF AKRON, OHIO, ASSIGNORS TO THE AKRON IRON COMPANY, OF SAME PLACE.

DEVICE FOR DRAWING WIRE RODS.

SPECIFICATION forming part of Letters Patent No. 393,808, dated December 4, 1888.

Application filed March 19, 1888. Serial No. 267,776. (No model.)

To all whom it may concern:

Be it known that we, AARON P. BALDWIN and REUBEN HADFIELD, citizens of the United States, residing at Akron, Summit county, Ohio, have invented a new and useful Improvement in Clutches for Drawing Metal Rods, of which the following is a specification.

In the drawings forming a part hereof, Figure 1 represents a plan of the clutch; Fig. 2, an elevation of the same; Fig. 3, a horizontal section of the main part of the same, and Fig. 4 a vertical cross-section of the same at line 1 in Fig. 2.

The arms *a a* are keyed on rock-shafts *b b*, which are provided with toothed wheels or segments *c c*, connected with each other. Shafts *b b* are supported by and turn in frame *f*, and one of them is provided with a wheel, *d*, by means of which they are operated. Arms *a a* are formed with edges or sharp ends *a' a'* to enter the opposite sides of the rod *e*, which is to be drawn through a die for the purpose of smoothing or polishing the rod. The inner or contiguous sides of arms *a a* are preferably made concave, in order that their edges *a' a'* may the more firmly grasp and hold the cylindrical rod *e*. Frame *f* is adapted to be connected by a pin through hole *g* to a carrier which moves on suitable ways and draws rod *e* through the polishing-die.

In operation the arms *a a* are first turned by means of wheel *d* until their edges *a' a'* are in contact with rod *e*. The clutch is then moved forward by its carrier, thereby forcing the edges *a' a'* into rod *e* and drawing it through the die. The pin or stop *s*, projecting from the bottom of the upper part of frame *f* between arms *a a*, arrests them and prevents them from cutting through rod *e*. On leaving the die, when rod *e* has been drawn, its recoil forces open arms *a a* sufficiently to release the rod. To insure such automatic release of rod *e*, the arms *a a* should project forward at an angle to each other approximating forty-five degrees, because if such angle were very obtuse the recoil movement would be insufficient to release the rod.

We claim as our invention—

1. In a clutch for drawing metal rods, two rock-shafts connected by gearing and provided with two arms formed with edges to grasp and hold the rod to be drawn, substantially as described.

2. In a clutch for drawing metal rods, two rock-shafts connected by gearing and provided with two arms formed with edges to grasp and hold the rod to be drawn, in combination with a stop to prevent said edges from cutting too far into the rod, substantially as described.

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