

(No Model.)

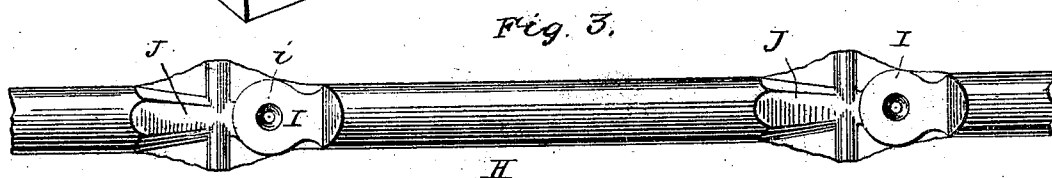
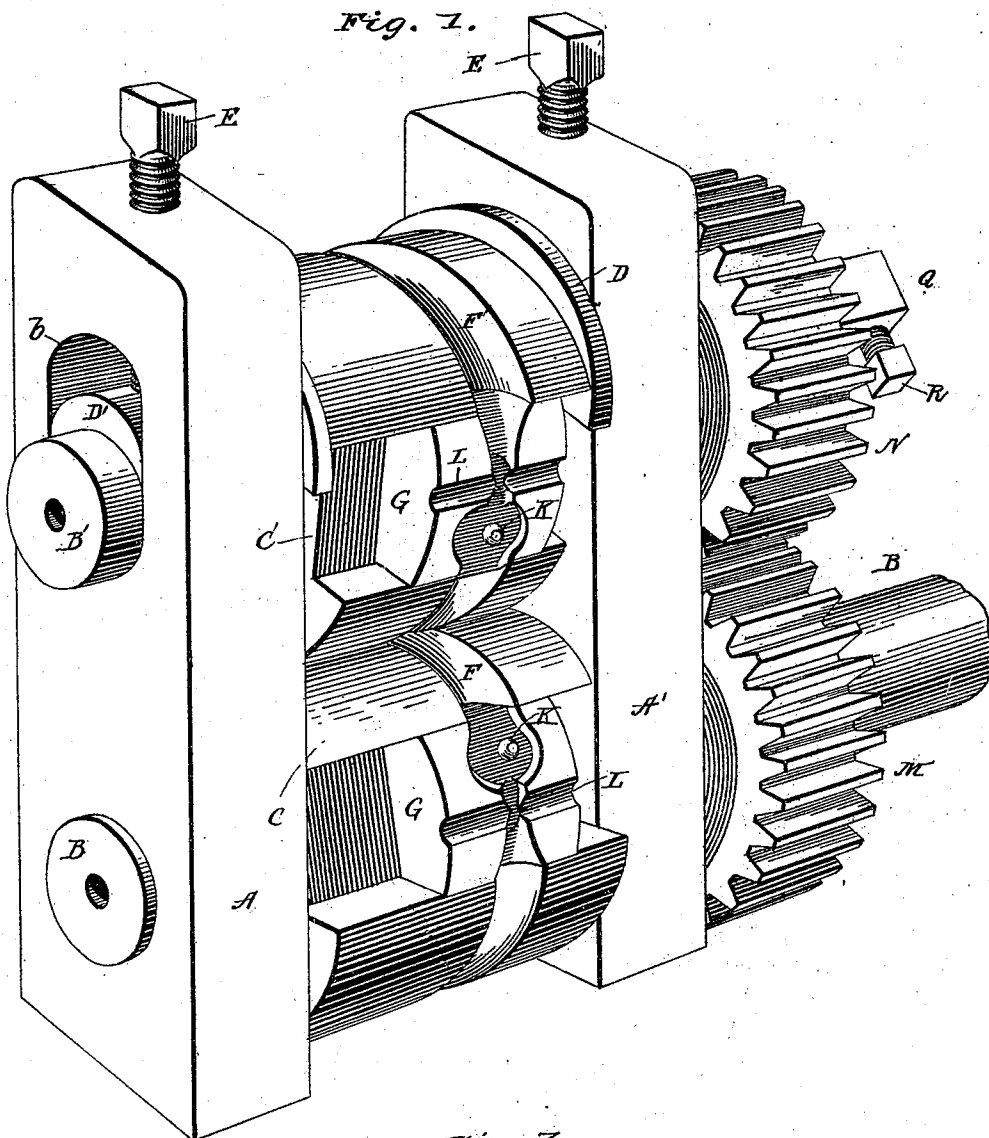
2 Sheets—Sheet 1.

J. W. CRAMER.

MACHINE FOR ROLLING SOLDERING IRONS.

No. 502,280.

Patented Aug. 1, 1893.



WITNESSES:

Frank S. Ober
H. A. Aiken

INVENTOR

John W. Cramer

BY

G. H. Stockbridge
ATTORNEY.

(No Model.)

2 Sheets—Sheet 2.

J. W. CRAMER.

MACHINE FOR ROLLING SOLDERING IRONS.

No. 502,280.

Patented Aug. 1, 1893.

Fig. 2.

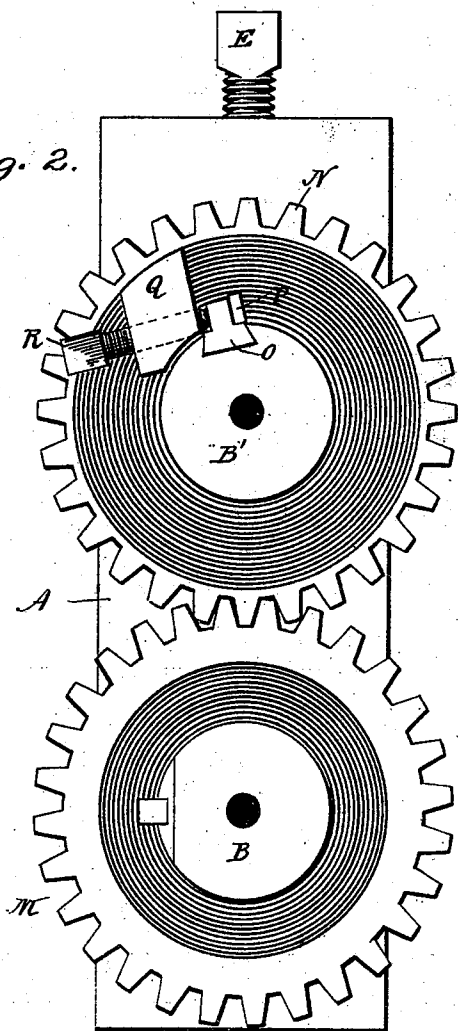


Fig. 4.

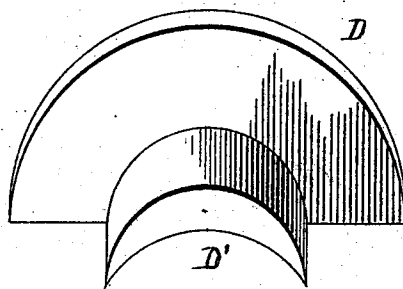
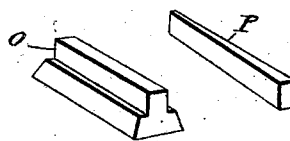


Fig. 5.



WITNESSES:

Frank S. Ober.
H. A. Hoken

INVENTOR

John W. Cramer.

BY

G. H. Stockbridge
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN W. CRAMER, OF WEST TROY, NEW YORK, ASSIGNOR TO JAMES C. COVERT, OF SAME PLACE.

MACHINE FOR ROLLING SOLDERING-IRONS.

SPECIFICATION forming part of Letters Patent No. 502,280, dated August 1, 1893.

Application filed June 28, 1892. Serial No. 438,253. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CRAMER, a citizen of the United States, residing at West Troy, in the county of Albany and State of New York, have invented certain new and useful Improvements in Die-Rolling Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in that class of rolling machines in which the rolls are provided with adjustable forming dies for compressing a suitable blank into a desired shape, and it is especially designed to furnish an apparatus for rolling soldering coppers.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 is a perspective view of my die rolling machine. Fig. 2 is an elevation of one of the gear wheels, showing means for adjusting the same. Fig. 3 shows the copper point, and the head or eye formed by my machine; and Figs. 4 and 5 are detail views.

Referring to the drawings by letter, A, A', are two standards, supported in a suitable base (not shown). Journaled in the said standards, are shafts, B, B', on which are mounted rolls, C, C', as shown. The lower shaft, B, is rigidly seated in its journals, while the upper shaft passes through at each end a slot, b, which is considerably longer than the diameter of the shaft, B', thus allowing for the vertical adjustment of the upper roll. A rigid top bearing for the shaft, B', is secured by inserting the loose pieces, D', D', above the said shaft in the slots, b, b, and pressing them down by means of the screw bolts, E, E. The pieces, D', which I shall call adjustable bearing-pieces, are shaped as shown, so that their horizontal portion has an inner curve corresponding to the curve of the shaft, B'. At the same time, a vertical ring, or segment, D, is formed on the inner end of each of the pieces, D', and this vertical portion forms the side bearing for the upper roll, C'. The proper adjustment of the segments D, of the bearing-pieces, D', later-ally, will make it certain that the correspond-

ing grooves, F, F', in the rollers, C, C', will be in alignment as respects their side to side dimensions. Now, it will be seen that the roll, block, or drum, C', is cut away and that a block, G, is dovetailed into the said roll or drum; and that the same is true with regard to the lower roll or drum, C. The two blocks, G, G, are so shaped as to mold or form the two ends of the soldering piece. The shape of the said soldering-piece, designated by the letter H, is shown in Fig. 3. It is flattened at the end, I, and pointed at J. When in its final shape, the soldering-point at its flattened end is pierced at i, in order to permit of a suitable handle being attached to it. The molds, formers, or dies, on the blocks, G, G, do not perforate the metal, but cause depressions at exactly opposite points in the flattened surfaces, by means of the pintles or nipples, K, K. There is a groove, L, in each of the blocks, G, G, which is meant to take up the surplus of metal, and at the same time, pull or feed the whole metallic rod along, so as to protect the shape of the article already rolled and to form a continuous strip of copper, made up of pieces having the general shape illustrated in Fig. 3. The blocks, G, G, as a whole, may be called the dies and they are obviously adjustable in the rolls, C, C'.

The above is a general description of my die rolling machine, it being understood that the rolls or drums, C, C', may be as long as is desired, and have as many grooves as may be called for.

The apparatus is operated from the shaft, B, on which is rigidly mounted a gear-wheel, or pinion, M, which engages with a similar gear-wheel, N, on the shaft, B'. The gear-wheel, N, is adjustably secured to its shaft by the following means: to wit, a feather, or key, O, which enters a groove in the shaft and dovetails therewith, and also projects into an opening in the gear-wheel, N. A wedge, P, is provided for tightening the connection after adjustment. Now, there is a projection, Q, standing out from the face of the wheel, N, and a screw, R, passes through this projection and comes into contact with the key, O. It will be readily understood that by suitable changes in the position of the wedge, P, and the screw, R, the gear-wheel, N, can be ad-

justed within certain limits, with relation to its shaft. In this way, if the two pintles, K, K, should get out of alignment in the direction of the circumference of the rolls or drums, they can be brought back by a suitable adjustment of the gear-wheel, N.

It is obvious that a wedge and a screw alone might secure the adjustment of the said gear-wheel; or that for the same purpose two wedges might be employed, or one or more wedges in combination with a set-screw through a hub on the gear-wheel or a key set between the spokes.

Having now described my invention, what I claim is—

1. In a rolling mill, the combination with the rolls thereof, of the dies having lateral grooves to take up the surplus of the blank and form projections thereon which are en-

gaged by said grooves to carry the blank positively between the rolls, substantially as described.

2. The combination, in a rolling mill, of the intergearing cog-wheels on the journal of the rolls, the blocks inserted in the gear wheels, the set screws passing through the same, the wedges adjustably feathered in grooves in the gear wheels and the shafts of the roll, whereby the rolls may be adjusted circumferentially to cause the dies to properly register, substantially as described.

In testimony whereof I have signed my name, in the presence of two witnesses, this 25th day of June, A. D. 1892.

JOHN W. CRAMER.

Witnesses:

ARTHUR B. STEWART,
FRED W. COVERT.