E. F. SEERY.

Art of Making Ornamental Chains.

No. 221,745. Patented Nov. 18, 1879.

Fig. 1.

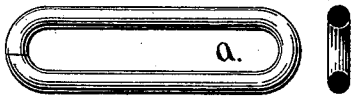


Fig. 2.

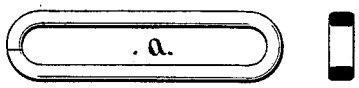


Fig. 3.

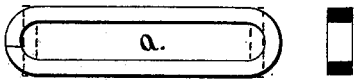


Fig. 4.

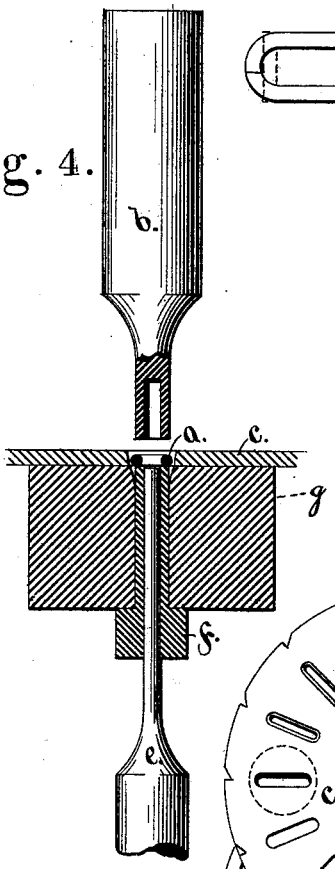


Fig. 5.

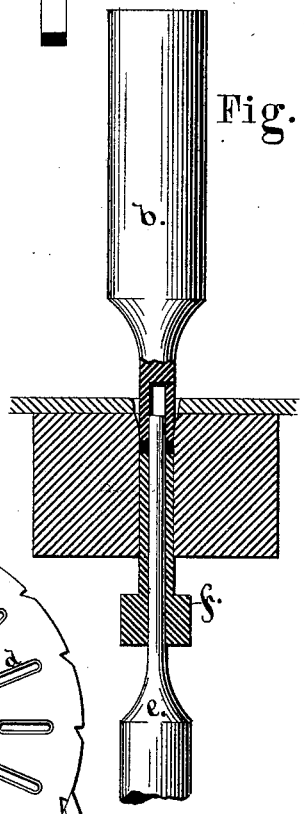
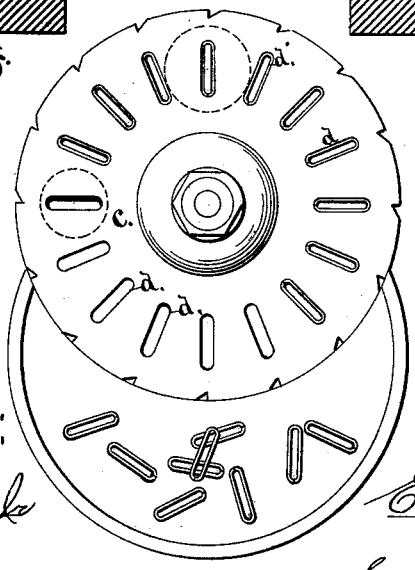


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDWARD F. SEERY, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN THE ART OF MAKING ORNAMENTAL CHAINS.

Specification forming part of Letters Patent No. **221,745**, dated November 18, 1879; application filed July 7, 1879.

To all whom it may concern:

Be it known that I, EDWARD F. SEERY, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Improvement in the Art of Making Ornamental Chains; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in the art of making ornamental chain-links of any desired form when the section of the metal in the finished state is rectangular, or nearly so.

The invention consists in the method of manufacturing ornamental chain-links, substantially in the manner hereinafter described, the same consisting, essentially, in first forming the link of round wire, then subjecting the link to compression between suitable dies and transforming the round link-wire into rectangular or similar form in cross-section, and afterward subjecting the compressed link to the action of burnishing-dies.

Ornamental chain-links as heretofore constructed were ordinarily made and bent of wire having the sectional form desired in the finished link. To bend such wire into the form of the link the wire had to be annealed to prevent breaking of the wire in the short bends. The wire, after gilding, is finished and burnished, which must be done by hand, and is a slow process. The links have now to be put together and joint-soldered, and the portion injured by the heat repolished.

By my present invention the labor and expenses incident to the older process are greatly reduced when the chain-links in their finished condition are desired to be of metal the section of which is rectangular. I use round wire for such chains, which is much cheaper than rectangular wire for the same weight. I bend the round wire in the same manner as has been done heretofore. I now place the link into a die of such construction that the wire and the link are compressed and forced into rectangular form in cross-section and into the desired form and size of the link. The link is now compressed hard and springy, much stiffer than when made in the old manner of rectangular wire, and all the links are precisely alike. They are now gilded, and then dipped in oil. They are again forced through a similar die and over a similar former, both of which are kept bright and clean, so that the whole link, inside and outside, is burnished and finished in a superior manner. The different links are now connected together, and as the metal is hard and the link sufficiently springy the joint will close, so that no soldering is required.

To more fully describe this invention, I will now describe the drawings.

Figure 1 is a view and section of a link formed of round wire. Fig. 2 is a view and section of the same link when compressed. Fig. 3 is a view and section of the finished link. All these links may by my improved method be made with square or nearly square ends, as is shown in Fig. 3 in broken lines. Fig. 4 is a sectional view of the die shown in position when the link is entered. Fig. 5 shows the position of the die and link when the compression is complete. Fig. 6 is a view of the revolving blank-feeder and the stationary platform on which the blanks are deposited.

In the drawings, *a a* are the chain-links; *b*, the upper hollow plunger. *c* is a revolving feeder-plate, in which the openings *d d* are made to receive the links. *e* is the former, fitting the interior of the link. *f* is the follower, and *g* the tapering die, into which the link is forced by the plunger *b*.

The operation has been fully set forth.

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

The method of manufacturing ornamental chain-links, substantially as hereinbefore set forth, the same consisting, essentially, in first forming the link of round wire; second, in subjecting the round-wire link to compression between suitable dies, and thereby transforming the round link-wire into rectangular form in cross-section; and, third, in subjecting the compressed link to the action of burnishing-dies to burnish the surface of the link, substantially as set forth.

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Witnesses:

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