

F. VAN PATTEN.

Machine for Trimming Chain Links.

No. 51,102.

Patented Nov. 21, 1865.

Fig. 2

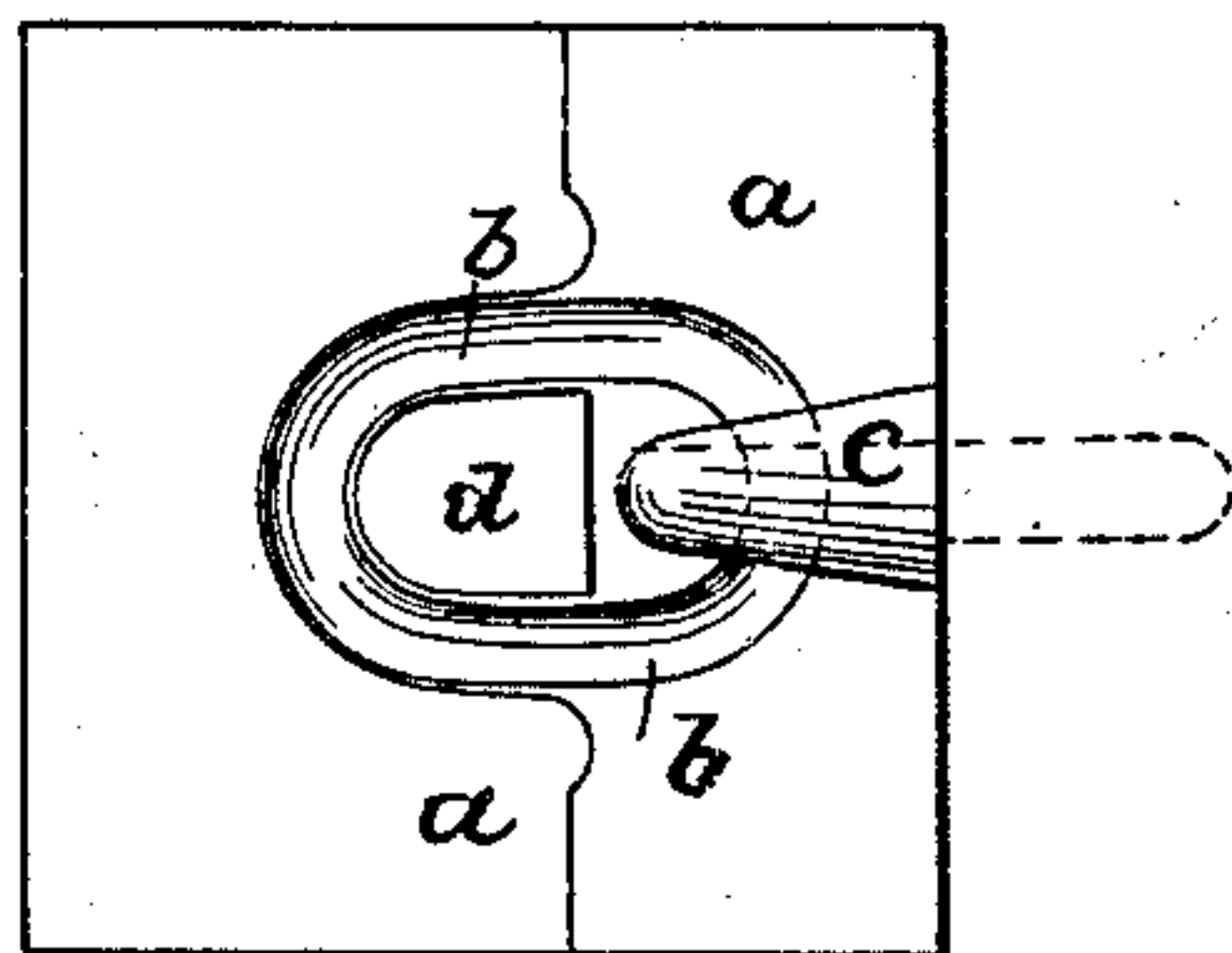


Fig. 1

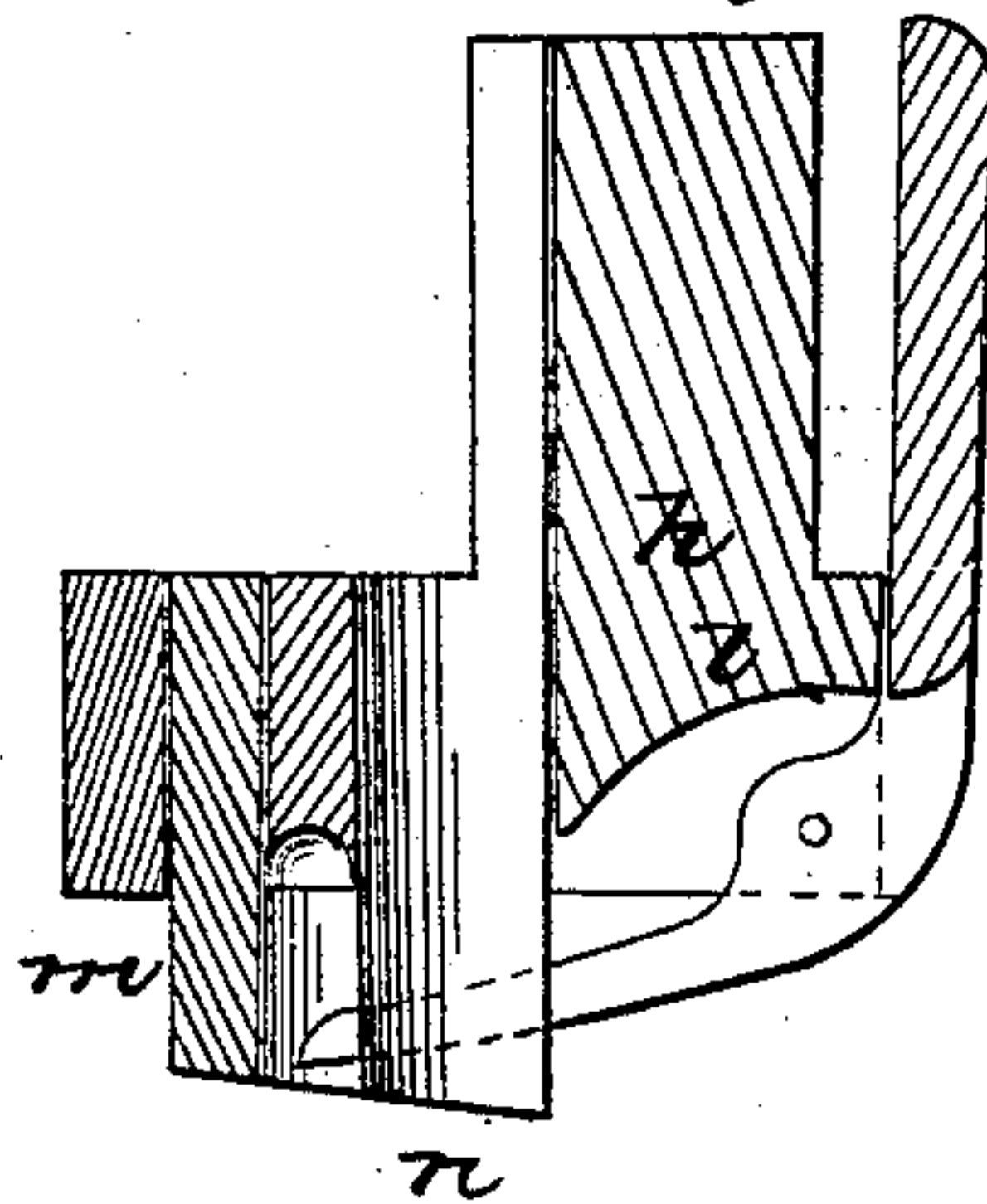
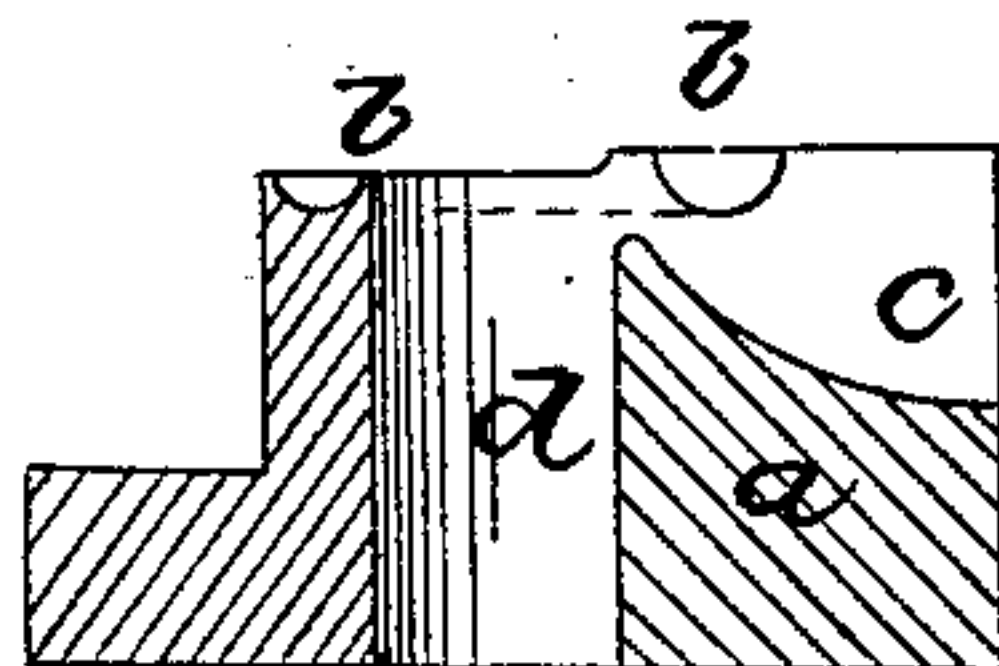
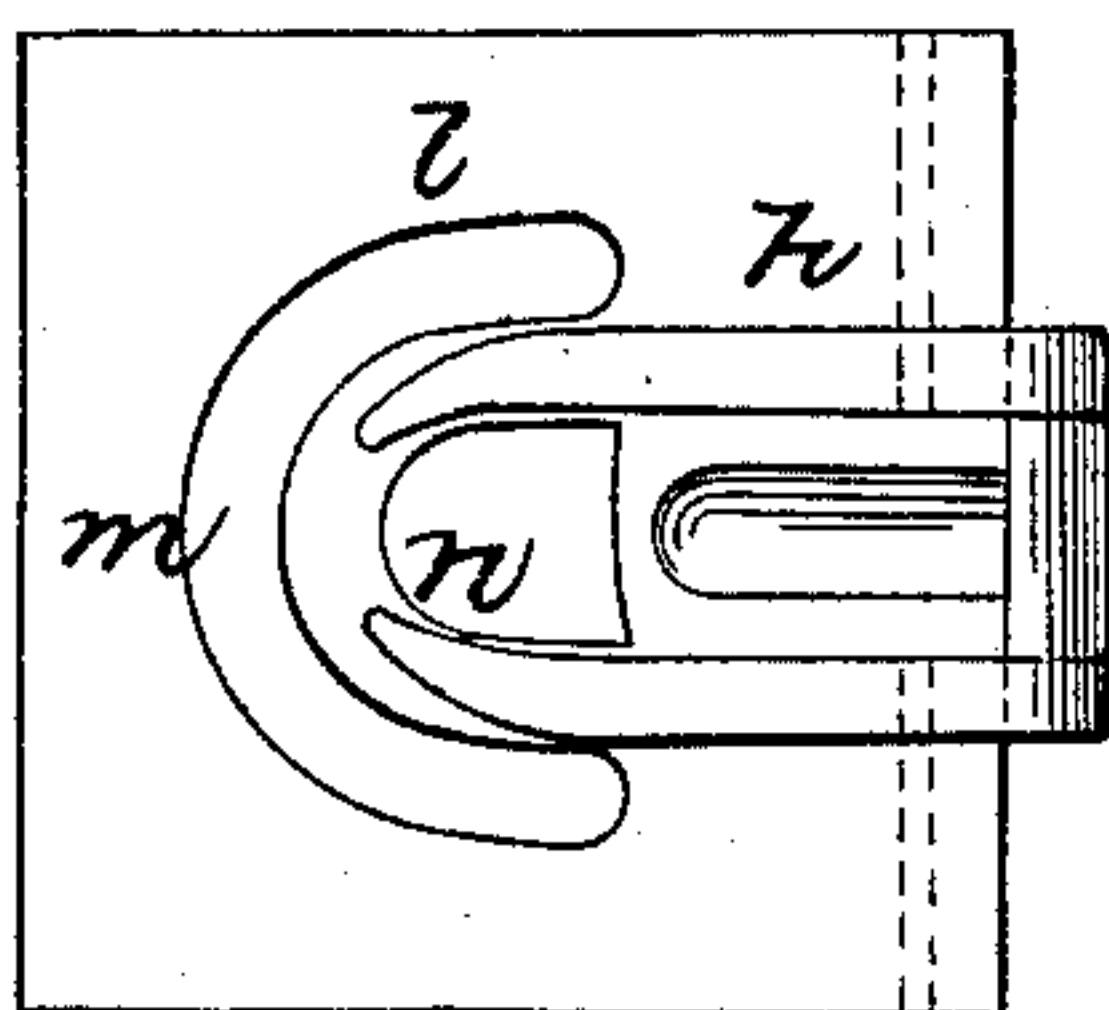



Fig. 3



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F. VAN PATTEN, OF ILION, NEW YORK.

MACHINE FOR TRIMMING CHAIN-LINKS.

Specification forming part of Letters Patent No. 51,102, dated November 21, 1865.

To all whom it may concern:

Be it known that I, FRED VAN PATTEN, of Ilion, in the county of Herkimer and State of New York, have invented a new and useful Improvement in the Manufacture of Chains; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to a new die for trimming chain-links after having been welded; and consists in the use of a fixed and stationary block or anvil, in combination with a drop-die or cutter, the two being so constructed and arranged with regard to each other that after having properly placed or set the link to be trimmed upon the fixed block, and then allowing the die to fall upon the same, the edges of the link are thereby neatly and evenly trimmed, the importance of which in the use of chains is too well known to need any particular mention. Heretofore this trimming of the links, and more especially those welded by machinery, has been generally accomplished by filing, which, it is evident, not only required much time, but was expensive.

In accompanying plate of drawings my improvement is illustrated, Figure 1 being a central vertical section through the block and drop-die; Fig. 2, a plan or top view of the block or anvil, and Fig. 3 a view of the under side of the die.

a a in the drawings represent the block or anvil, which can be fixed to any suitable standard, support, or base therefor. This block has upon its upper surface or face a shallow groove, *b*, made of a shape in cross-section, and extends around in a semicircular direction corresponding to those of the chain-links, in which groove the link, after having been welded and thus interlocked with another link, is placed, a proper shaped, deep, vertical slot or groove, *c*, being made in said block to receive the link on which it has been welded, as plainly represented in the drawings, and especially in Fig. 2, where the links are shown by red lines. The inclosed portion *d*, and also that surrounding the groove *b*, is cut out or away in such a manner that the edges of the link, when it is placed upon and in the groove, will slightly

project over the exterior and interior edges of the same, as will be presently described.

h is the die, which is to be suitably arranged upon vertical guides or standards, so that it can be dropped upon or raised from the anvil or block when desired. This die has projecting from its under surface or face, *l*, or that which, when it is dropped upon the fixed block, would come in contact therewith, knife or cutter blades *m* and *n*, one of which, *m*, is made of such shape as to correspond with the outer periphery of the anvil-groove and fit over and about the same, while the other similarly corresponds and fits around the interior edge of the same. These knife or cutter blades are inserted in the die-block, and are to be arranged therein so as to be firmly and tightly fixed and yet easily susceptible of removal for sharpening or inserting new ones as they become worn.

The link to be trimmed having first been laid upon the anvil-block and in its groove, the die, with the knife blades or cutters attached to it, as before explained, is then allowed to drop down and upon the same, its cutters consequently clipping and trimming the link as desired, and as is evident without further description. Another link is then welded upon and to the links just trimmed, and then it is trimmed, and so on, until the desired length of chain is obtained. To and upon the die *h* is hung a bifurcated lever, *r*, the object of which, by swinging up its handle *s*, is to throw the link off of the die in case it should adhere thereto after being struck or trimmed by it, this lever, of course, being arranged and constructed in such a manner as not to interfere in the least with the operation of the die *h*, and being only used as a convenient means for accomplishing the object above specified.

I claim as new and desire to secure by Letters Patent—

The combination of the fixed anvil-block and cutter-blades *m* and *n*, arranged together and constructed substantially in the manner described, and for the purpose specified.

The above specification of my invention signed by me this 16th day of June, 1865.

F. VAN PATTEN.

Witnesses:

M. M. LIVINGSTON,
WM. F. McNAMARA.