H. C. STOUFFER.

CRIMPING TOOL FOR FASTENING BALE-TIES.

No. 190,642. Patented May 8, 1877.

fig. 1.

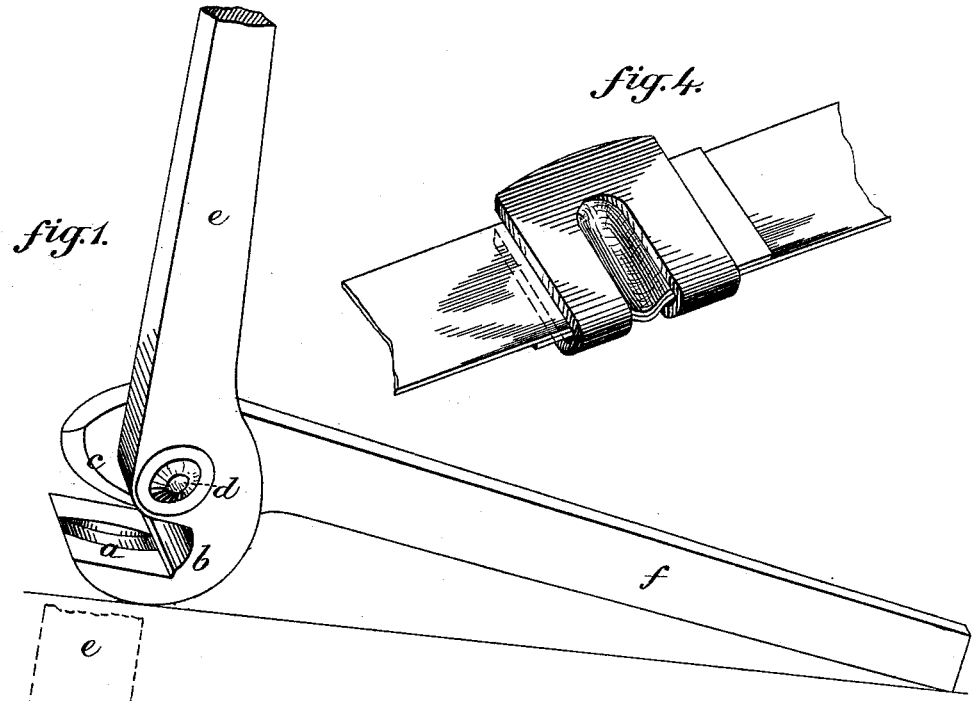


fig. 4.

fig. 2.

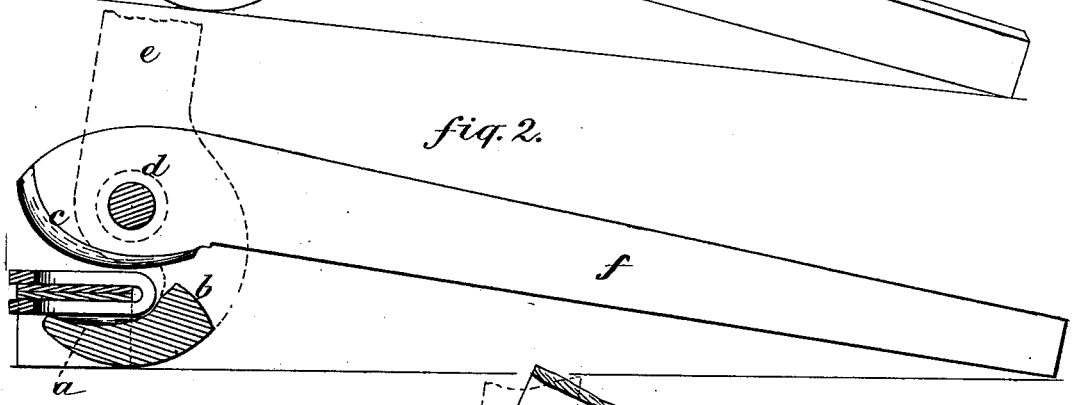
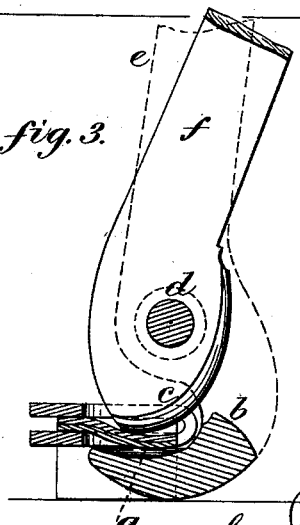


fig. 3.



Witnesses.
J. Wm. Wagner
Floyd Norris

Inventor:
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by Johnson & Johnson
Attys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HIRAM C. STOUFFER, OF CANFIELD, ASSIGNOR OF A PART OF HIS RIGHT TO CHANCY H. ANDREWS, LEMUEL T. FOSTER, AND UPSON A. ANDREWS, OF YOUNGSTOWN, OHIO.

IMPROVEMENT IN CRIMPING-TOOLS FOR FASTENING BALE-TIES.

Specification forming part of Letters Patent No. **190,642**, dated May 8, 1877; application filed April 25, 1877.

To all whom it may concern:

Be it known that I, HIRAM C. STOUFFER, of Canfield, in the county of Mahoning and State of Ohio, have invented a new and useful Crimping-Tool for Fastening Cotton-Bale Ties, which is fully set forth in the following specification and accompanying drawings:

The tool is used in the manner of a pair of tongs, and is designed to crimp or bulge the metal of the lapped portions of a bale-hoop into an opening or eye in the fastening-buckle, which invention in bale-ties forms the subject of a separate patent, and embraces a buckle having a through-slot for the lapped ends of the hoop, and coincident openings in the opposite sides of said buckle, one of which coincident lapped portions of the hoop is bulged or crimped to make the fastening.

The tool for this purpose has a supporting and a crimping jaw, which are opened and closed in a manner to give the crimping member a short eccentric action in relation to the supporting-member to obtain a powerful pressure upon the hoop to be crimped, while rendering such operation comparatively easy by means of long lever-handles.

The tool is applied when the buckle is upon the laps of the hoop, and the supporting member has a broad bearing to hold the buckle firmly while the narrow crimping-jaw is closed into the face opening or eye of the buckle, and upon the surface of the lapped hoop, to bulge or crimp said laps into the under opening or depression of the buckle, to fasten the latter secure to the laps. The tool can be easily applied and handled when on the buckle.

Referring to the drawings, Figure 1 represents the crimping-tool, showing the jaws open; Fig. 2, a section, showing the tool in the position when applied to the buckle; Fig. 3, a similar view, showing the tool in the position when applied to the buckle, and the locking bulge or crimp made in the laps of the hoop and within the buckle-eye, and Fig. 4 the buckle fastened by the crimps to the lapped ends of the hoop.

The jaws are adapted to receive the buckle between them and to support it upon the broad bearing *a* of a hook-shaped jaw, *b*, to which a narrow-faced crimping-jaw, *c*, is secured by a strong pivot-bolt, *d*, in a manner to cause said crimping-jaw to approach the hook-bearing *a*, as the lever-handles *e f* of said jaws are closed, and give a short eccentric action upon the face of the lapped-hoop ends, so as to bulge or depress the metal thereof toward the jaw-bearing *a*, and into the eye or countersink of the under side of the buckle, which, having lapped sides or an outer and an under face, has an outer opening or eye to allow the crimping-jaw to act through it and directly upon the laps of the hoop, to force the metal like a bead into the opening or eye. The bulge need only be equal to the thickness of the plate, so that the bearing-surface *a* may be plain; or it may have a countersink to receive a countersink in the under-buckle face.

The crimping-jaw acts like a cam, and its acting-face is beveled to give a proper and quick bulge or crimp in the laps, and its pivot-connection is made so as to give a short and powerful bite upon the metal as the jaws are closed.

In applying the tool the jaws are opened, and the hooked bearing inserted between the bale and the buckle, with the lever-handle of the crimping-jaw resting upon the bale as a fixed point, and the hooked jaw brought down, closing in the crimping-jaw and completing the fastening.

The jaws should be relatively arranged, so as to bring the crimping-jaw in the middle of the supporting-jaw.

The cam formation of the acting-surface of the crimping-jaw gives a gradual crushing force upon the metal, and renders the action of the tool easier, while avoiding all tendency to split or rupture the hoop.

The tool can be used to take out the crimp or bulge to remove the buckle, if desired, by reversing it, so as to bring the crimping-jaw

upon the bulge of the hoop, in which case the lever-handles only close sufficient for the purpose; or the supporting-jaw *a* may be provided with a dovetail piece to serve as a gage in taking out the bulge.

I claim—

A crimping-tool for fastening bale-ties, consisting of the hooked bearing-jaw for the buckle, and the cam-shaped narrow crimping-jaw for the hoop, operated by the lever-handles, as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

HIRAM C. STOUFFER.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.