(No Model.)

G. M. ROUNDS.

BALE TIE CUTTER.

No. 480,878. Patented Aug. 16, 1892.

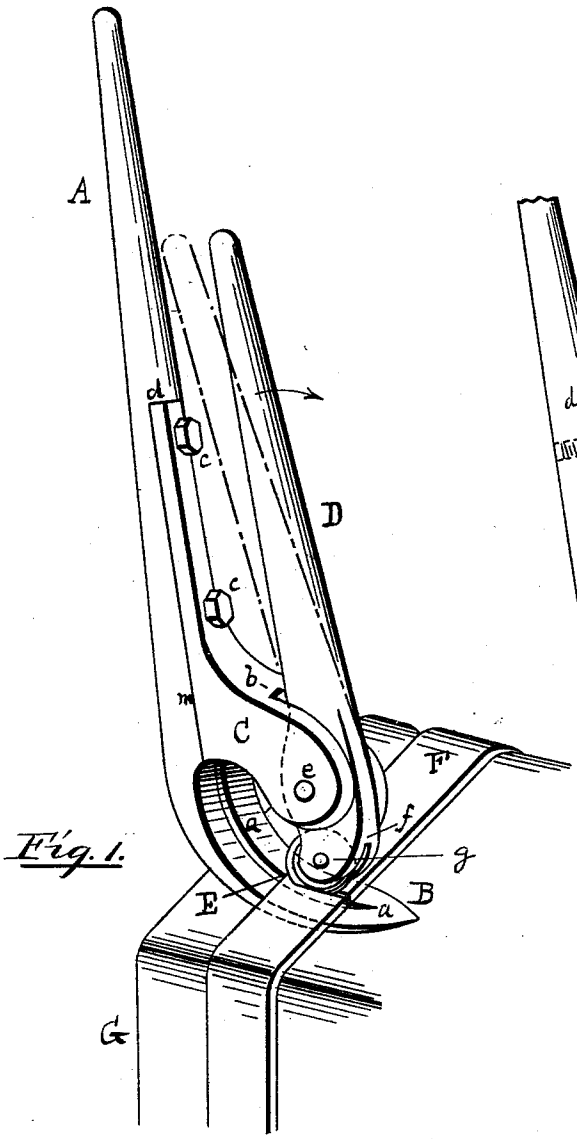

Fig. 1.

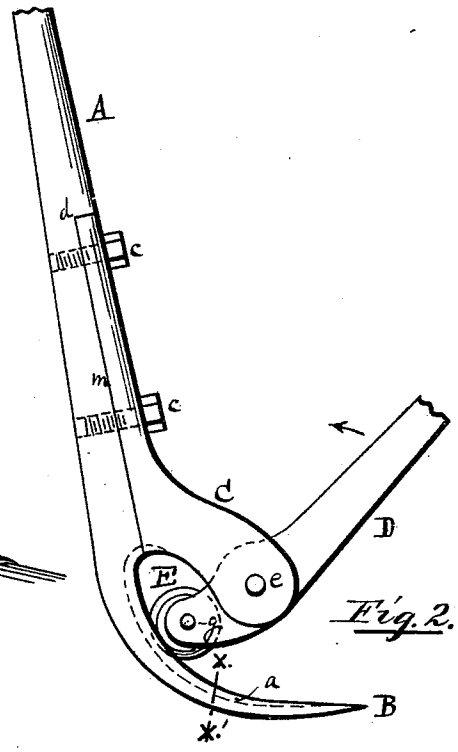

Fig. 2.

Fig. 3.

Witnesses.

Daniel W. Linds

Chas. F. Wilson

Inventor.

George M. Rounds

by his attorney

Warren R Pierce

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE M. ROUNDS, OF TAUNTON, MASSACHUSETTS.

BALE-TIE CUTTER.

SPECIFICATION forming part of Letters Patent No. 480,878, dated August 16, 1892.

Application filed April 2, 1892. Serial No. 427,444. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. ROUNDS, of the city of Taunton, in the county of Bristol, in the State of Massachusetts, have invented a certain new and useful Improvement in Bale-Tie Cutters; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 is a perspective view of my improved cutter as seen in the operation of cutting a bale-tie. Fig. 2 is a side elevation of my invention. Fig. 3 is a view partly in elevation and partly in section, as seen on line $x\,x'$ of Fig. 2.

My invention is a device adapted to cut the metallic ties or bands of bales of cotton, wool, or other merchandise.

It consists of a handle provided with an adjustable extension and a flat elongated and grooved end, which is bent in the arc of a circle, in combination with a lever pivotally mounted on said extension and having a cutter at its end to traverse in the groove of said handle, as hereinafter particularly described.

In the drawings, A represents the handle of the implement, one end of which, as seen at B, is flattened, elongated, and curved to form a sharp pointed tip. The tip B is longitudinally grooved, as shown at *a*. An extension or piece C, whose outer end is slotted, as seen at *b*, is fastened to the handle A by screws *c*, the handle being cut away with a shoulder at *d*, so that the piece C rests flat upon said handle on the upper side thereof. The lever D is mounted in the slot *b* of the extension C by the pivot *e*. The end of the lever D is slotted at *f*, and a rotary cutter E is mounted in said slot *f* by the pivot *g*.

The operation of this instrument is as follows: The sharp thin edge of the tip B is inserted under the bale-tie F of the bale G, the lever D being then in the position indicated by dotted lines in Fig. 1. As the arc described by the end of the lever D in its movement is of a less radius than that of the curve of the tip B, and as said radii are not concentric, but eccentric, the cutter E occupies a space above and apart from the tip B when the lever D is in the position shown in dotted lines in Fig. 1, and is not then in contact with the band F, but lies above it for a sufficient distance to entirely clear it; but when the lever D is moved in the direction indicated by the arrow in Fig. 1 the cutter E strikes the edge of the band F and cuts it through and across. The cutter E in severing the band enters the groove *a* of the tip B. The band F being under great tension, because of the elasticity of the cotton which has been compacted by a hydraulic press or otherwise, as is the custom in the packing of cotton for transportation, and being supported by the flat surface of the tip B on each side of the groove *a*, readily yields to the action of the cutter. The leverage of the arm D exerts a great power to force the cutter into and through the tie, so that the operation is easily and quickly performed.

It will be observed that the lever D may operate in either direction, inward or outward, with equal facility and effectiveness. If the instrument is in the position shown in Fig. 2 and the tie is in the position *x* upon the tip B the lever may be moved in the direction shown in said figure by the arrow and the tie will be cut in two.

The extension C is a separate piece detachable from the handle for the purpose of adjustment to compensate for the wear of the cutter E. When the cutter is worn down by long-continued use, it will be necessary to adjust this extension C so that the cutter will better enter the groove *a* of the tip B. To accomplish this the screws *c* are removed and the plane under surface *m* of the piece C is ground or filed down. When the piece C is thus refitted and the screws *c* replaced, the cutter E is thereby brought into proper cutting-contact with the tip in the groove thereof.

In order to cut the tie of a cotton-bale, it is necessary that the tie should be pried up from the cotton sufficiently to enable the cutter to sever the tie. I therefore provide my implement with a thin flat tip and elongate and curve it as shown. The tip is easily inserted beneath the tie and the outer curve furnishes a fulcrum, so that pressure upon the handle exerts a powerful force to raise the tie from the cotton in which it is embedded.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. The combination of the handle A, having the flat elongated and curved tip B and the

extension C, the lever D, bifurcated at its end and mounted on said extension, and the rotary cutter E, mounted in the bifurcation of the lever D, substantially as specified.

2. The combination of the handle A, having the tip B grooved at *a*, the detachable extension C, mounted on said handle by the screws *c*, the lever D, pivotally mounted on said extension and provided with the rotary cutter E, substantially as described.

GEORGE M. ROUNDS.

Witnesses:
FREDERIC C. COTTRELL,
GEORGE H. GOULD.