

(No Model.)

J. DAVAINÉ.

TWINE HOLDER ALARM FOR HARVESTERS.

No. 373,225.

Patented Nov. 15, 1887.

Fig. 1.

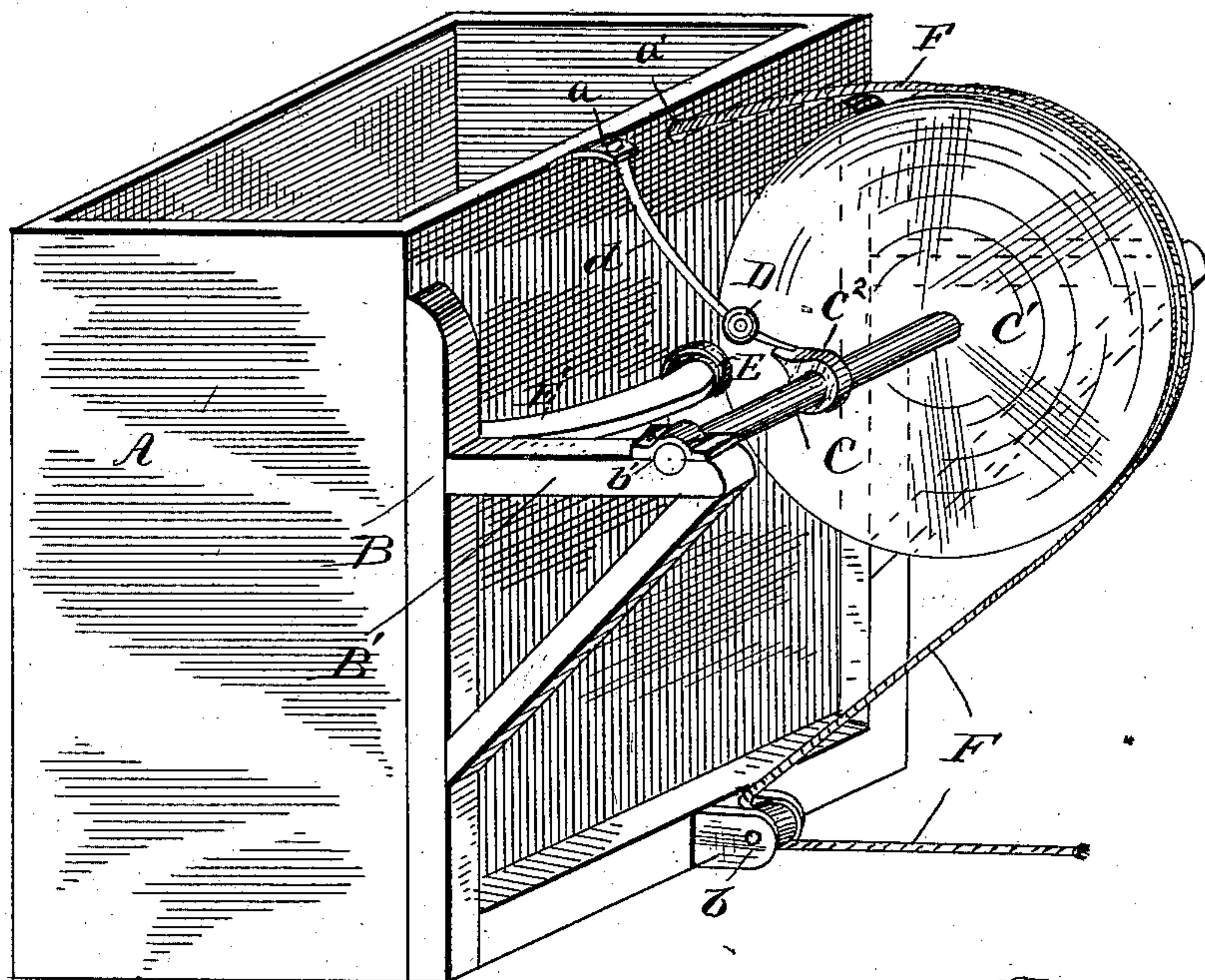
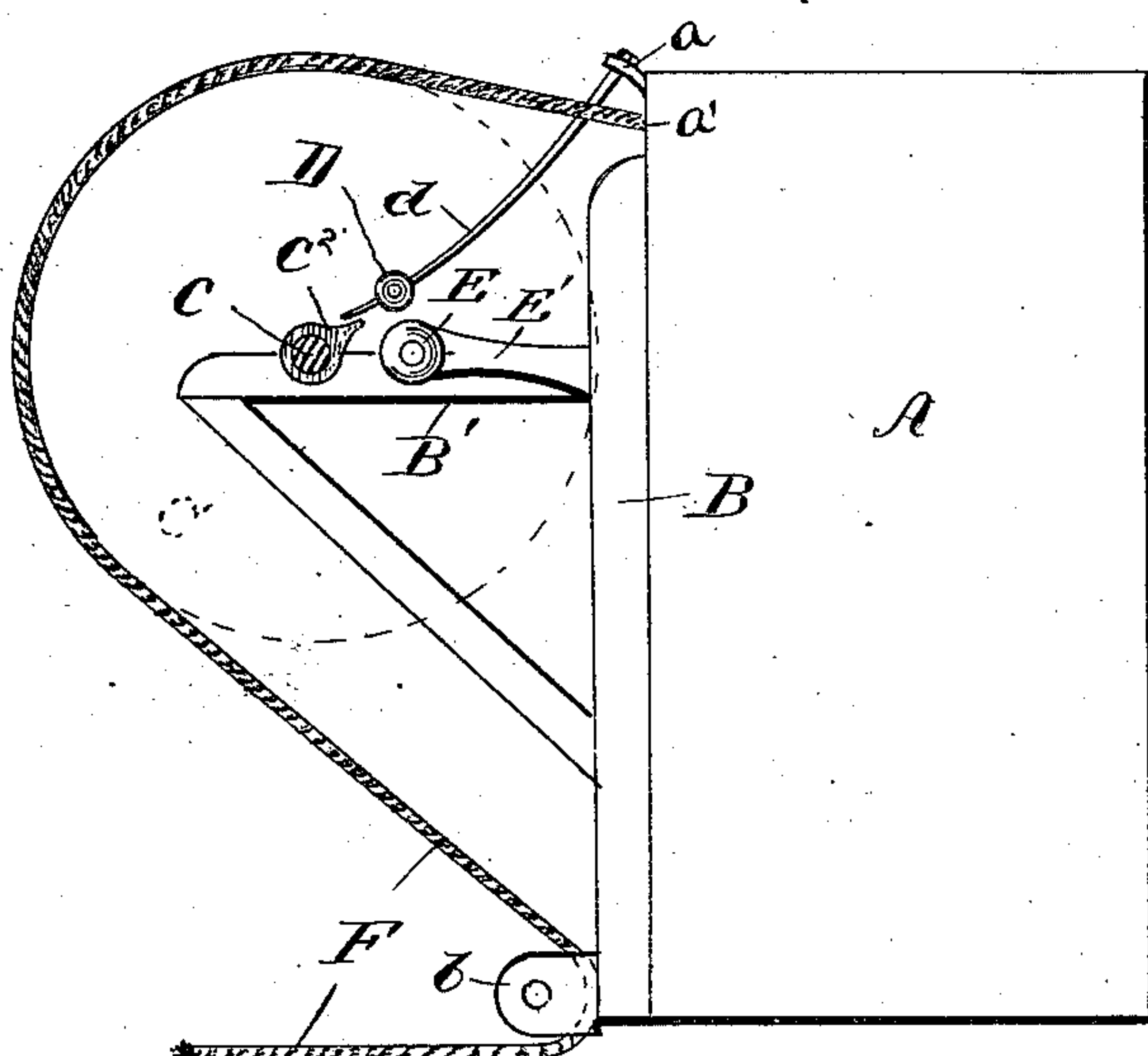


Fig. 2.



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TWINE-HOLDER ALARM FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 373,225, dated November 15, 1887.

Application filed February 26, 1887. Serial No. 228,985. (No model.)

To all whom it may concern:

Be it known that I, JOSIAS DAVAINÉ, a citizen of France, residing at Dysart, in the county of Tama and State of Iowa, have invented certain new and useful Improvements in Twine-Holder Alarms for Harvesters; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My said invention relates to an improved construction of signals for use in connection with twine-holders, by the use of which any irregularity in the feeding or running of the twine or other binding material will be made known, as will be hereinafter more particularly described.

Referring to the accompanying drawings, which are made a part hereof, and in which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a twine-holder showing my improved signal in operative position thereon; and Fig. 2, an end elevation thereof, a portion of the frame being broken away, and the operating-wheel being shown in dotted lines to more clearly illustrate the signaling mechanism itself.

In said drawings, the portion marked A represents the twine-holder; B, the frame supporting the signaling mechanism; C, an operating-shaft; D, a hammer; E, a bell, and F the cord.

The twine-holder A is particularly designed for use on reaping and binding machines; but, as will be readily understood, it may be any suitable twine-holder of any desired construction.

The frame B is any suitable frame for supporting the parts which it is designed to carry, bearings *b'* being provided on the brackets *B'* for the shaft C, as shown.

The shaft C is any suitable shaft mounted in the bearings *b'*, and has a band-wheel, *C'*, rigidly mounted thereon, said wheel being preferably formed with a grooved face, forming a seat for the cord or twine. Instead of the wheel shown, any suitable revolving part might be used, as will be readily understood. A cam

or trip, *C²*, is also rigidly mounted on said shaft in such a position as to operate the hammer, as will be presently described.

The hammer D is secured to the twine-holder by means of a spring-stem, *d*, which is secured at its outer end to an ear, *a*, the point of said stem extending through the hammer part to a position in the path of the cam or trip *C²*.

It will be readily understood, of course, that the particular manner of mounting the hammer herein shown may be considerably varied without departing from my invention, this manner being only shown as a suitable and convenient construction.

The bell E is or may be of any suitable construction, and is secured directly beneath the hammer D on an arm, *E'*, as shown, or in any other suitable manner.

The cord F may be any material used for binding or tying purposes. It is held in the box A, as usual, it being fed through a suitable eye, *a'*, in the side of the box, and passes down over the wheel C to a sheave, *b*, on the lower part of the frame B, and to the tying mechanism, or wherever desired.

The operation of my said invention is as follows: The cord or twine is pulled forward by the tying mechanism or any other means, and, passing down over the wheel *C'*, operates to rotate said wheel, and through it the shaft and cam or trip *C²* thereon, which at each revolution operates to lift the hammer D a short distance, and then let it fall against the bell E and sound an alarm. In its use with binding mechanism the wheel *C'* is designed to be of sufficient circumference that a sufficient amount of twine to tie one bundle will be fed off while said wheel is making one revolution, thus sounding the alarm as each bundle is tied. Should the twine become broken, exhausted, or get out of place in any manner, this operation will become suspended, and the fact be made apparent to the operator from the cessation of the alarm, as will be readily understood.

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

1. A signal apparatus for twine-holders for grain-binders, consisting of a revolving wheel or roller mounted between said twine-holder

and the tying mechanism, and arranged to be operated by the cord itself passing over the same, and an alarm-bell arranged to be operated by said revolving wheel or roller only during the
5 passage of the cord, substantially as set forth.

2. In a signal device for grain binders, the combination of a supporting-frame, a shaft mounted thereon and provided with a wheel and cam, a bell, and a hammer, said parts being
10 arranged to be operated by the cord passing over said wheel on said shaft, substantially as set forth.

3. The combination, in a grain-binder, with the twine-holder A, of the frame B, shaft C, wheel C', cam C², spring-mounted hammer D, 15 and bell E, the cord F being arranged to pass over said wheel C' and operate the device, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSIAS DAVINE.

Witnesses:

T. H. STEWART,
FRED W. BROWNE.