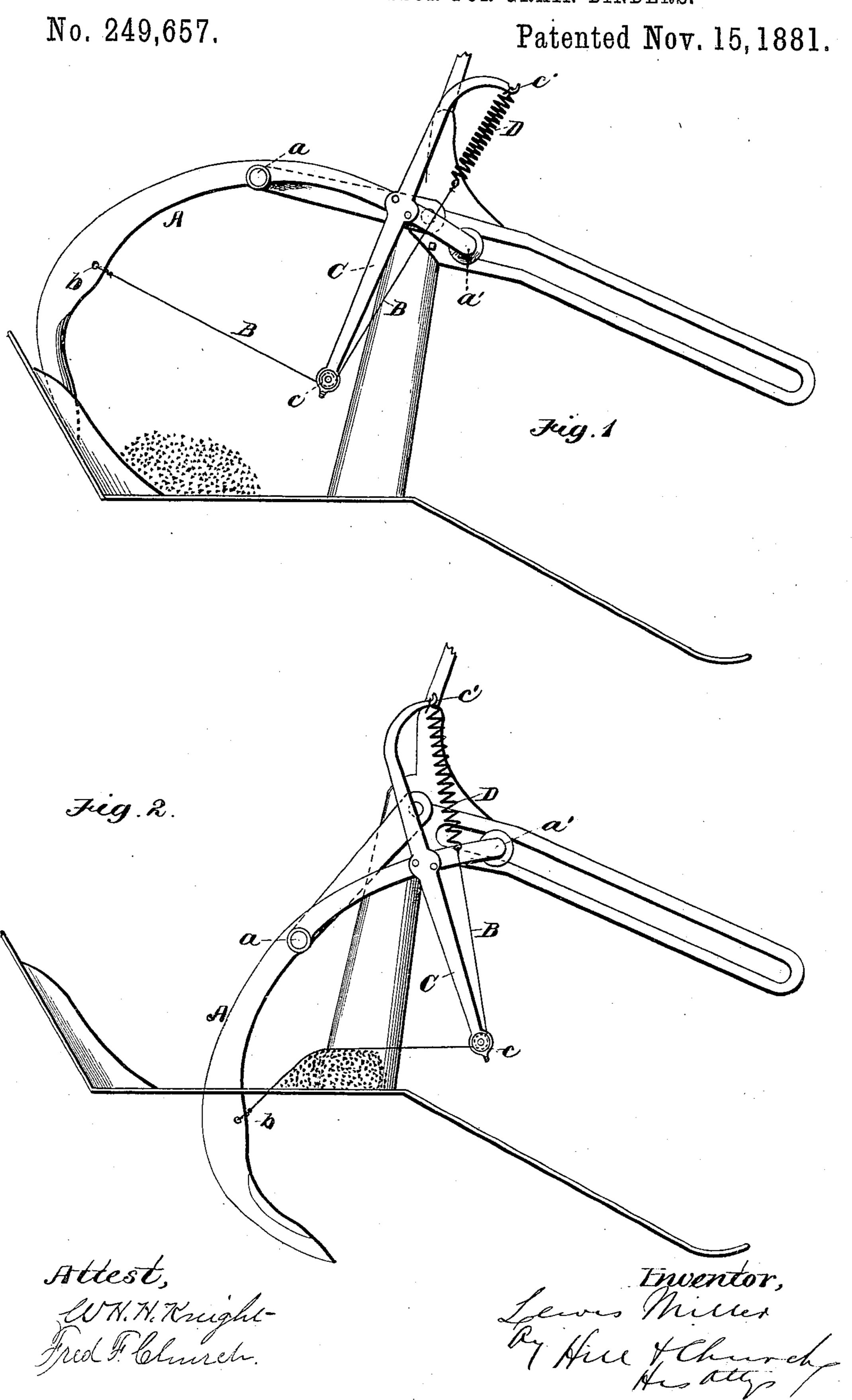
L. MILLER.

BUNDLE COMPRESSOR FOR GRAIN BINDERS.



## United States Patent Office.

LEWIS MILLER, OF AKRON, OHIO.

## BUNDLE-COMPRESSOR FOR GRAIN-BINDERS.

SPECIFICATION forming part of Letters Patent No. 249,657, dated November 15, 1881.

Application filed September 7, 1881. (No model.)

To all whom it may concern:

Be it known that I, Lewis Miller, of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Bundle-Compressors for Grain-Binders; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view showing the application of my compressor to the binding or cord-carrying arm of a binder, said compressor being in normal position. Fig. 2 is a view showing the position of the compressor when compress-

ing the grain.
Similar letters of reference in the several

figures denote the same parts.

My invention consists of an improved bundle-compressor mounted upon and entirely supported by the binding-arm of a binder, and composed of a flexible cord, strap, or wire secured at one end to the binding-arm at some distance from its point, and passing thence through a guide-arm mounted on the binding-arm, and finally secured to an elastic spring on the said guide-arm, substantially as I will now proceed to describe.

In the drawings, A represents the bindingarm, adapted to be mounted upon a rotating operating-crank at a, and also to be guided and controlled in its movements by the engagement of its heel a' with a slotted stationary guide, in the usual manner.

B represents the flexible cord, strap, or wire; C, the guide-arm, and D the tension-spring.

The guide-arm C is secured to the binding-arm near the heel of the latter, and its inner end is preferably provided with a sheave or pulley, c, over which the flexible cord passes, while at 40 its outer end it is curved and formed with a hook, c', from which to suspend the spring D. The flexible cord is attached at one end to the binding-arm at b, and, passing thence over the guiding sheave or pulley c, is connected at its 45 other end to the spring D, as shown.

In the operation of binding the grain is caught by the cord B between b and c, and is compressed into a bundle, the spring yielding sufficiently for the purpose, as shown in Fig. 2. 50 While the bundle is held compressed the binding cord or wire passed around the bundle during the tying operation is drawn tight and tied by the twing mechanism

tied by the tying mechanism.

The tension of the cord may be i

The tension of the cord may be increased or 55 diminished by attaching it to the spring at a shorter or longer reach, as will be readily understood.

I claim as my invention—

The combination, with the binding-arm of 60 a grain-binder, of a bundle-compressor consisting of a flexible cord secured at one end to the binding-arm at some distance from its point, and passing thence through a guide-arm mounted on the binding-arm, and finally 65 secured at its other end to an elastic spring on the said guide-arm, substantially as described.

LEWIS MILLER.

Witnesses:

N. N. LEOHNER, L. H. HANSCOM.