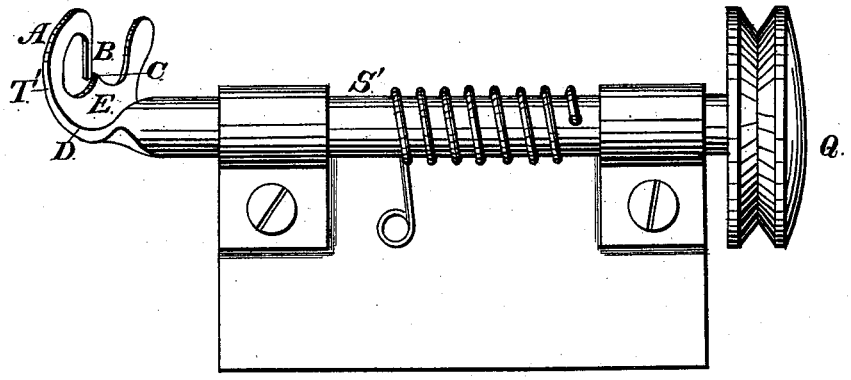
E. DEDERICK.
Grain-Binder.

No. 209,609. Patented Nov. 5, 1878.



Attest:
F. B. Brock
D. G. Stuart

Inventor:
Engra Dederick
per
Wm. Wallum
Attorney.

UNITED STATES PATENT OFFICE.

EZRA DEDERICK, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN GRAIN-BINDERS.

Specification forming part of Letters Patent No. **209,609**, dated November 5, 1878; application filed January 21, 1878.

To all whom it may concern:

Be it known that I, EZRA DEDERICK, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Machines for Binding Grain; 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 which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the accompanying drawing represents a side view of my invention.

The object of my invention is to furnish improvements in machines for binding grain with a cord; and consists in the peculiar device by which the knot is tied, and which is adapted to be used in connection with a certain binding-machine which I have heretofore invented, and for which I have received Letters Patent of the United States bearing date October 30, 1877, and which machine is more fully set forth and described in the specification and claims which accompany and form a part of said Letters Patent; and the device herein described is an improvement upon, and is intended as a substitute for, a somewhat similar device for the same purpose shown and described in said Letters Patent, with this exception—to wit, that while, by the said patented device, the ends of the cord are simply tucked under the band with the binding-claws, with this improvement the binding-claws that tuck under the band are provided with a hook and spring, which, while the binding-claws hold the twisted loop of the cord beneath the band, engage with the main cord above and draw it back with them through the loop first formed by the claws, and a secure knot is thereby formed, all of which is further explained by reference to the accompanying drawing and the claims and specification which accompany said Letters Patent, the same reference-letters being used in both cases to represent similar parts of the machine.

S′ represents the binding-shaft, provided with V-shaped binding-hook T′ and pulley Q′, which parts are thus shown and described in said Letters Patent.

My improvements in this device consist in providing the binding-hook T′ with the catch A, spring B, and the point C, and the peculiar angle and inclined form of the shoulder D, which, as the shaft S′ revolves in contact with the main binding-cord, crowds it against the spring B, between it and the point C, and thereby causes it to engage in the catch A, by which it is drawn back through the hoop first formed, and thus forms a perfect knot, as described, when the cords are cut and the binding is completed.

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

1. In a machine for binding grain with a cord, the shaft S′, having the V-shaped binding-hook T′, provided with a shoulder, D, inclined or curved, as described, for conducting the cord against the spring B, and between it and the point C, substantially as and for the purpose specified.

2. The shaft S′, provided with hook T′, catch A, spring B, projecting point C, and shoulder D, all substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EZRA DEDERICK.

Witnesses:

JAS. B. ERWIN,

CHAS. BEYER.