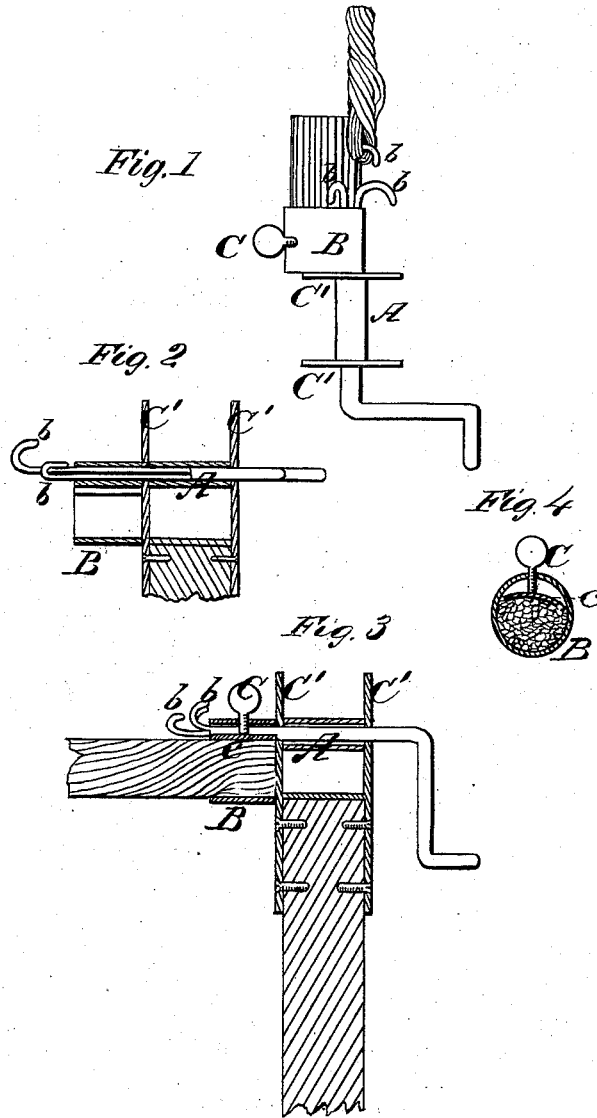


S. KUH.
Straw-Twisting Machine.

No. 160,777.

Patented March 16, 1875.



WITNESSES
E. A. Bates
H. C. Hollingshead

INVENTOR
Sol Kuh
Chipman & Osmer

Attorneys

UNITED STATES PATENT OFFICE.

SOL KUH, OF JEFFERSON, IOWA.

IMPROVEMENT IN STRAW-TWISTING MACHINES.

Specification forming part of Letters Patent No. **160,777**, dated March 16, 1875; application filed August 31, 1874.

CASE D.

To all whom it may concern:

Be it known that I, SOL KUH, of Jefferson, in the county of Greene and State of Iowa, have invented a new and valuable Improvement in Twisting Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my twisting apparatus. Fig. 2 is a detail view. Fig. 3 is a vertical sectional view. Fig. 4 is a detail view of the same.

The object of this invention is to prepare straw and other raw material for binding grain in gavels, and for other purposes where cheap bands are required; and the nature of my invention consists in applying on one end of a crank-shaft supported by suitable bearings a tubular clamping device and one or more hooks, for the purpose of securely holding straw or other material which it is desired to twist, as will be hereinafter more fully explained.

In the annexed drawing, A designates a shaft, which is supported by bearings C' and provided with a hand-crank on one end. On the opposite end of this shaft A three hooks, *b b b*, are secured, the shanks of which are in-

closed by a tubular holder, B, which is free to turn with, but not around, the said shaft. Through one side of the tubular holder B is tapped a thumb-screw, C, the inner end of which bears on a plate, *c*.

Straw and other pliant material to be twisted is attached to one of the hooks *b*, and the twist is given by turning the crank-shaft.

If two or more different kinds of material are to be twisted in one strand, the three hooks afford attachments for the material.

When the material to be twisted is either too short or too stiff for attachment to the hooks, it is inserted into the tubular holder B, and firmly confined therein by means of the screw C.

The twisted material should have rings or a wrapping applied on its ends to prevent untwisting when it is detached from the twisting-hooks.

What I claim as new, and desire to secure by Letters Patent, is—

The hooks *b*, tubular holder B, and clamp-screw C, applied on a crank-shaft, A, as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SOL KUH.

Witnesses:

C. H. JACKSON,
MAHLON HEAD.