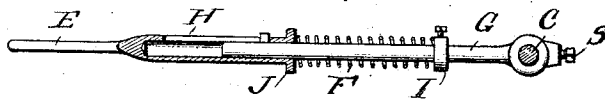
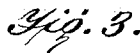
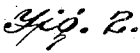


941,945.

Fig. 1.



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EDWIN PENNINGTON, OF WESTHOPE, NORTH DAKOTA.

SELF-BINDER ATTACHMENT.

941,945.

Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed October 26, 1908. Serial No. 459,483.

To all whom it may concern:

Be it known that I, EDWIN PENNINGTON, a citizen of the United States, and a resident of Westhope, in the county of Bottineau and State of North Dakota, have made certain new and useful Improvements in Self-Binder Attachments, of which the following is a specification.

My invention relates to improvements in means for depositing the bundles of grain delivered from a self binder in shocks while the machine is in motion, and it consists of the constructions, combinations and arrangements hereinafter described and claimed.

An object of my invention is to provide means whereby the bundles of grain as they are delivered from the self binder may be held together in shock form and at the will of the operator deposited in shocks.

A further object of my invention is to provide means whereby the number of bundles in the shock may be varied.

Other objects and advantages will appear in the following specification and will be particularly pointed out in the annexed claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the device. Fig. 2 is a plan view thereof, and Fig. 3 is a detail view of the cooperating spring-actuated arm.

Referring now to the drawings, I have shown therein a frame which I have denoted in general by A. This frame may be of any convenient form, but is preferably of such dimensions as to conform to parts of the particular self binder to which it is attached. Extending between the forward and rear side members respectively of the frame are the horizontal shafts B and C. These shafts are journaled in suitable bearings in said side members and are projected beyond the uprights on one side to form shoulders for the shocking members as hereinafter described.

The shocking members consist of two main parts, a trough D and a cooperating curved arm E. The trough member may be made of any suitable material, but is preferably of sheet metal having suitable stiffening members *d*, or of light wood similarly stiffened. The trough is somewhat longer than the grain bundles to provide guiding means for the bundles when the latter are to be deposited. The trough D is located on

the end of the shaft B, being secured to the latter on its curved outer side, as clearly shown in Fig. 1.

The operating member consists of a curved arm E which is secured to the end of the shaft C. This arm is normally extended by means of the spring F, which is situated on a rod G attached directly to the shaft C. The rod G is arranged to enter a hollow rod H to which the arm E is attached. A collar I forms a bearing member for the spring F, while a similar collar on the end of the hollow sleeve H is engaged by the spring to thrust the arm forward.

The driving mechanism for the device consists of the three sprocket wheels K, L and M. The sprockets K and L on the shafts B and C, respectively, are provided with a crossed sprocket chain O, which causes the shafts B and C consequently to revolve in opposite directions. These shafts are driven by means of a sprocket M, located on the shaft B and driven by a chain P attached to a sprocket wheel on the main machine (not shown).

From the foregoing description of the various parts of the attachment, the operation thereof may be readily understood.

The trough D and the arm E are so arranged on the respective shafts B and C that when the trough is in a horizontal position, or approximately so, the arm is vertical and when the trough is nearly in a vertical position, the arm E is approximately in a horizontal position and as before stated they are both revolving in opposite directions. The trough is designed to receive the bundles as they are ejected from the binder and must be of such a size as to hold a sufficient number of the bundles to form a shock. When now enough have accumulated to form a suitable shock, the operator throws the sprocket member of the main driving mechanism into gear by any suitable or well known means, thereby actuating the shocking attachment and causing the trough and arm to revolve on their axes. As the trough is inclined, the arm comes down and keeps the bundles from sliding off. Owing to the spring F on the arm E, the latter is held firmly against the bundles no matter how few or how many there are. Now as the shaft continues to revolve past the center the trough and the arm begin to diverge and the bundles are deposited in the form of a shock. The trough

continues to revolve and when it reaches the position shown in dotted lines in Fig. 1, the shocking attachment mechanism is stopped either by an automatic device which throws
5 the sprocket member of the main driving mechanism out of gear or by manual means employed by the operator. The starting and stopping mechanism, however, forms no part of the present invention, such means being
10 old and well known.

The relative adjustment of the arm E to the trough D is merely a matter of experiment. It will depend upon the size of the bundles, the number to be dumped in a
15 shock and other considerations. In order to obtain an adjustment I arrange the arm E to be held on the end of the shaft C by means of a set screw S, which enables the
20 arm to be set at any angle around the shaft and therefore to be placed in any relative angular relation to the trough D. This adjustment of the arm E is necessary in order to insure the dumping of the bundles at the proper time, so that they will not overturn.

25 I am aware that other forms of the device based upon the same general idea might be

made, but I consider as my own and desire to claim, all such modifications as fairly fall within the spirit and scope of the invention.

I claim—

1. An attachment for self binders comprising a frame, a pair of shafts mounted in said frame, a trough mounted on one of said shafts, a spring-actuated arm secured to the other of said shafts and arranged to
35 cooperate with said trough, and means for driving said shafts in opposite directions.

2. An attachment for self binders comprising a frame, a pair of horizontal shafts journaled in said frame, sprocket wheels on
40 said shafts, and a crossed sprocket chain driving said shafts in opposite directions, a trough mounted on the end of one of said shafts, a spring-actuated curved arm mounted for revolution on the other of said shafts,
45 and means for adjusting the angular position of said arm with respect to said trough.

EDWIN PENNINGTON.

Witnesses:

JNO. CONDIT,
KLARA REDO.