

No. 638,531.

Patented Dec. 5, 1899.

W. W. WALLACE.  
FEEDING DEVICE FOR SELF BINDERS.

(Application filed Feb. 1, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 4.

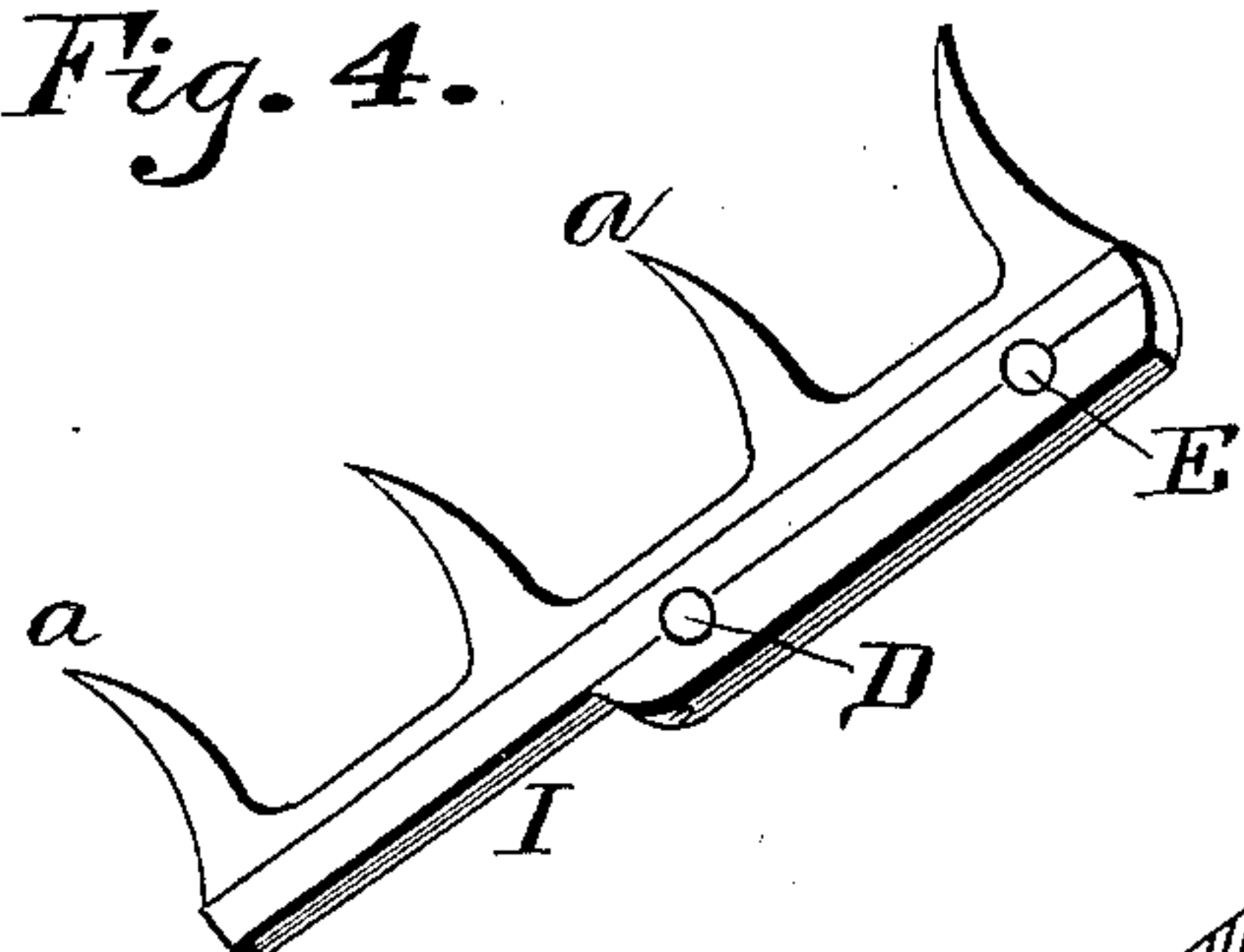


Fig. 1.

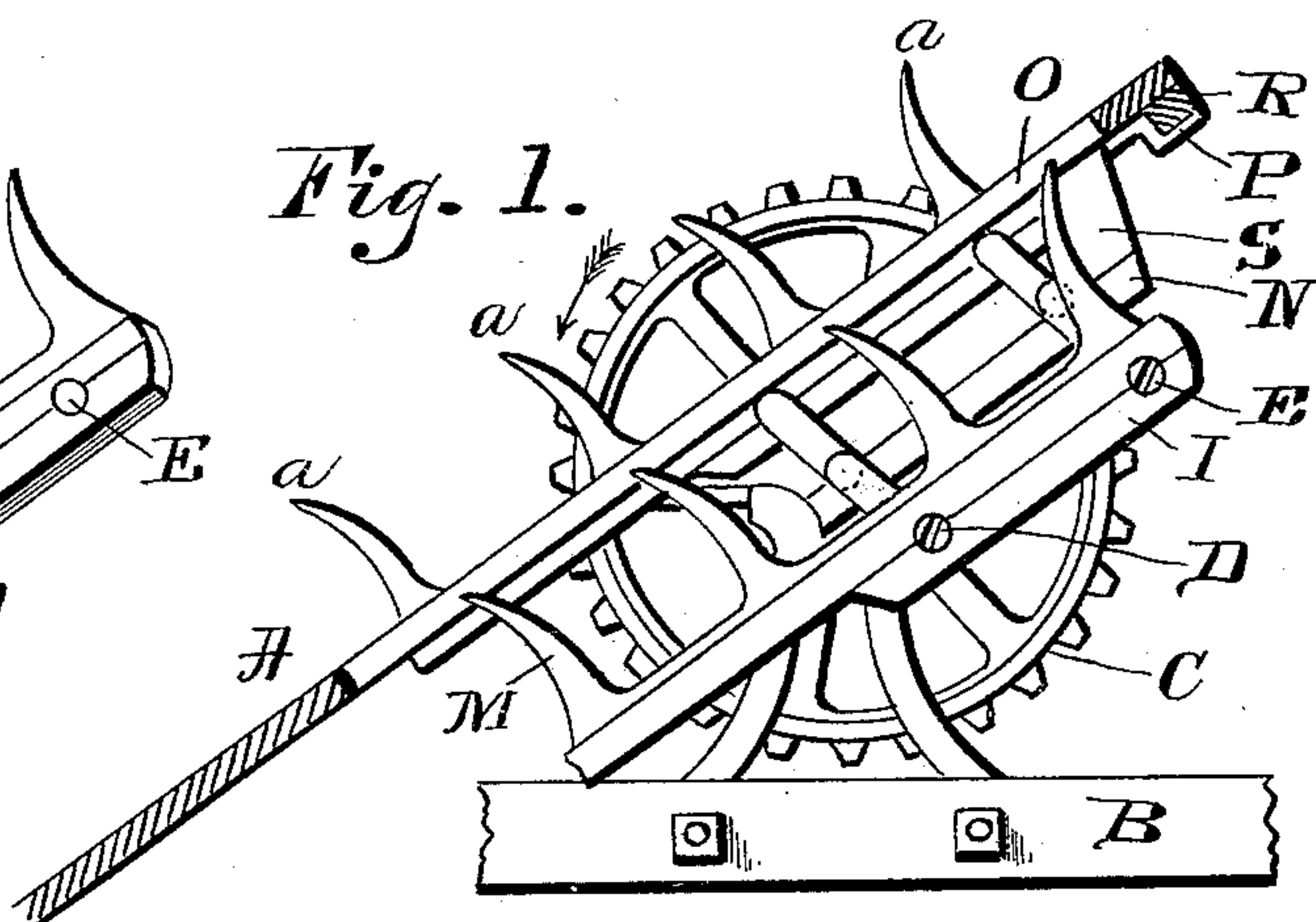
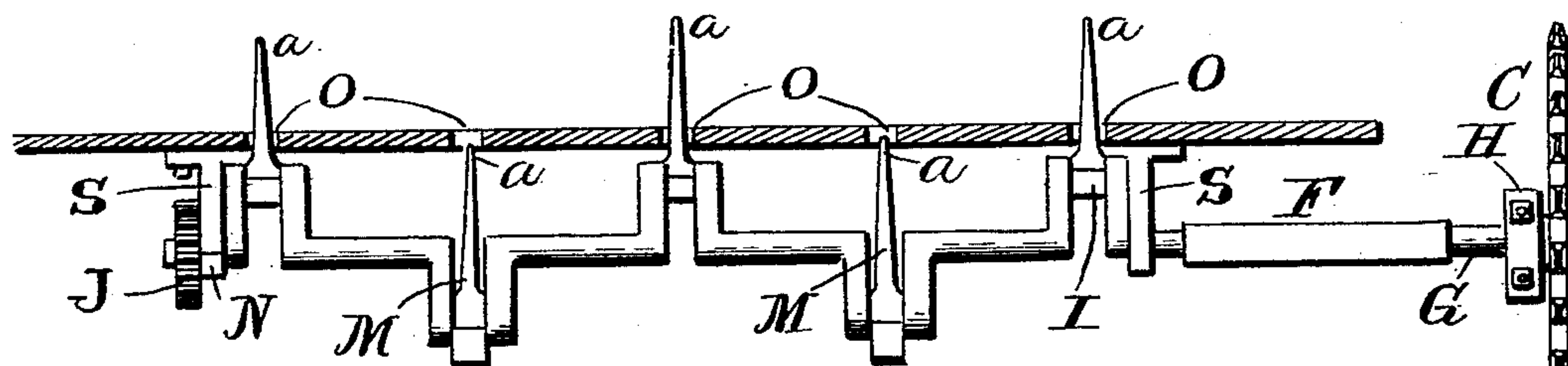
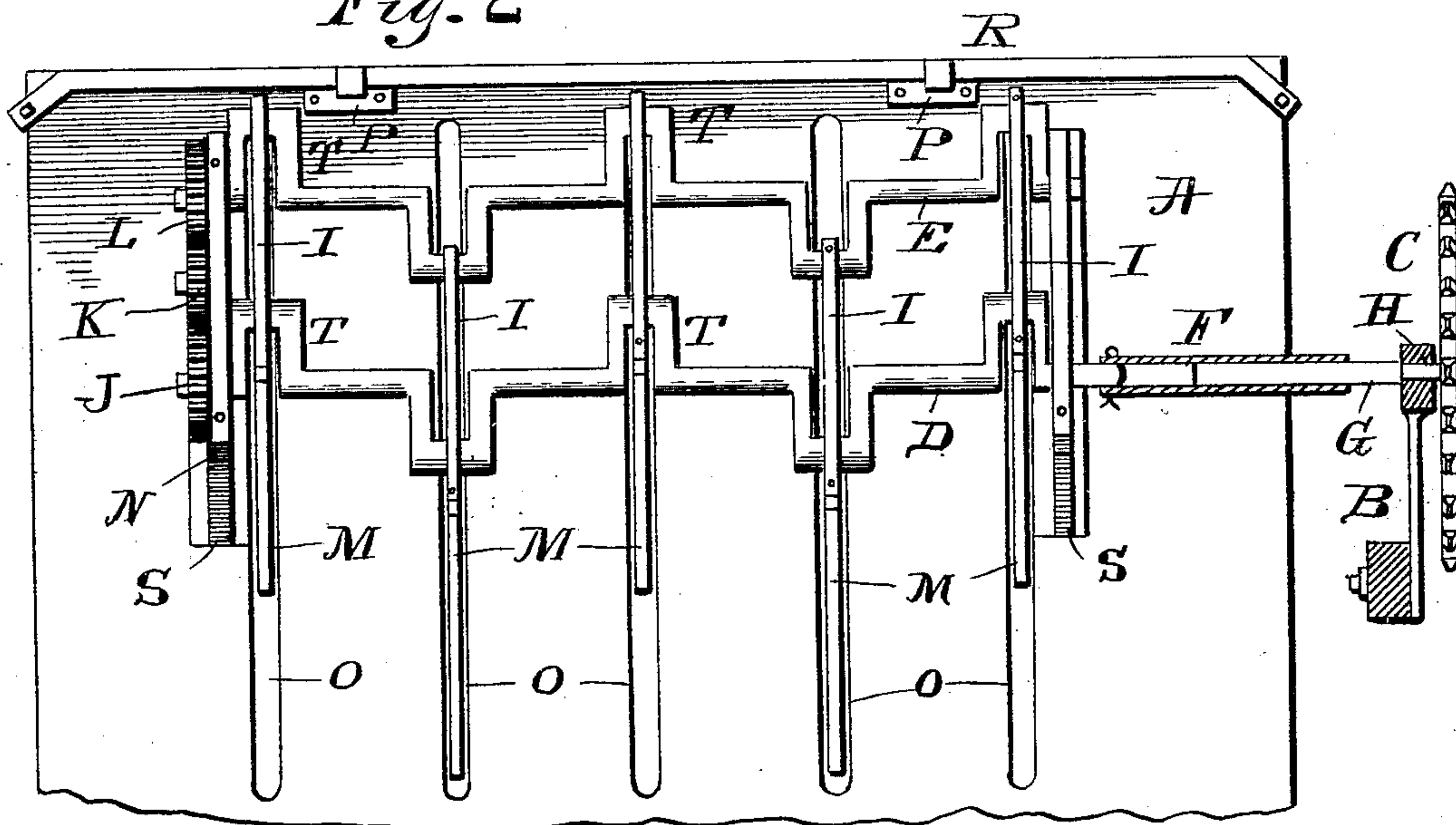


Fig. 2.



WITNESSES

Marcus L. Byng.  
Ralph H. Warfield

Fig. 3.

INVENTOR

William W. Wallace  
by John H. Cross,  
his Attorney.

No. 638,531.

Patented Dec. 5, 1899.

W. W. WALLACE.  
FEEDING DEVICE FOR SELF BINDERS.

(Application filed Feb. 1, 1899.)

(No Model.)

2 Sheets—Sheet 2.

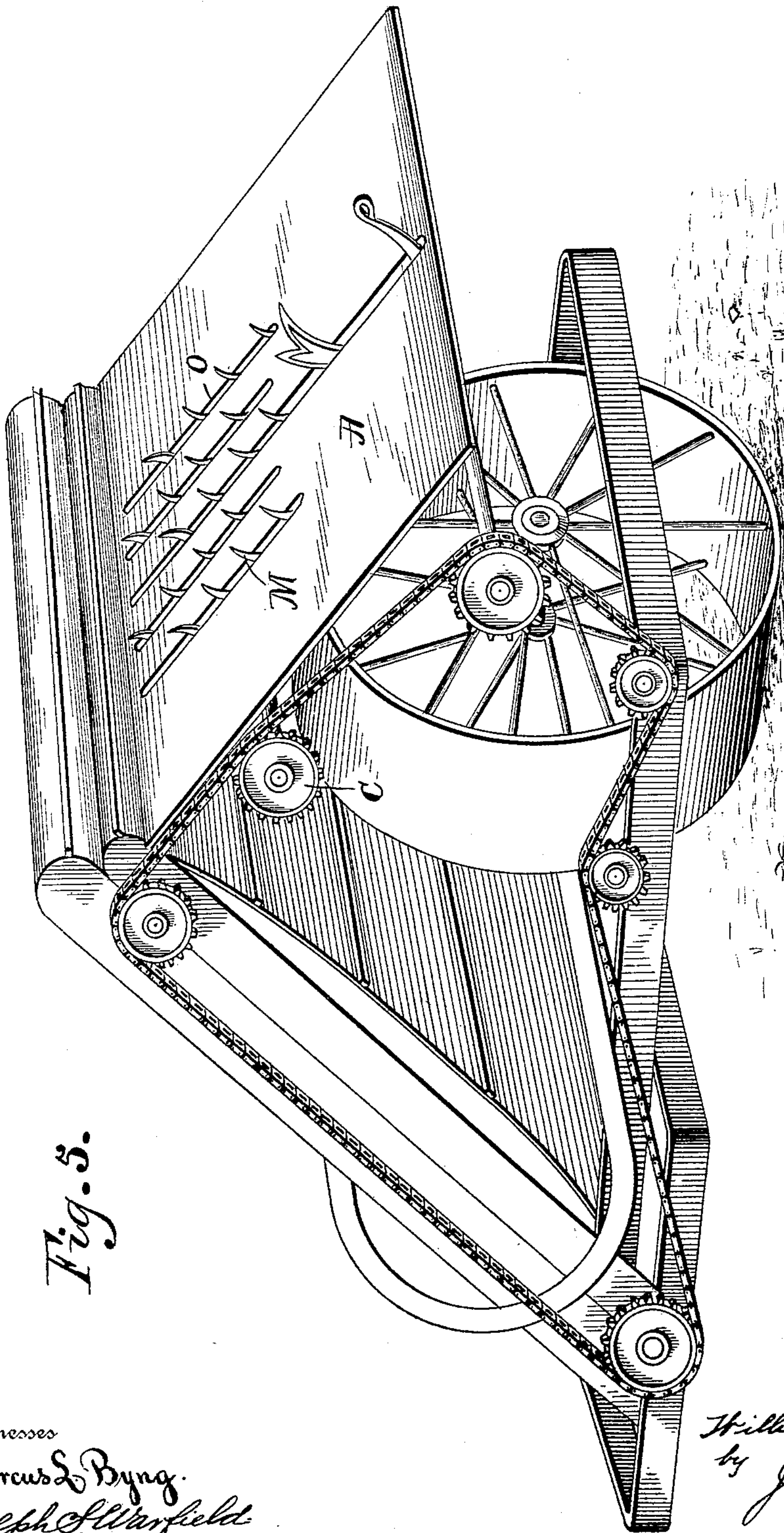


Fig. 5.

Witnesses  
Marcus L. Byng.  
Ralph S. Warfield.

Inventor  
William W. Wallace  
by John H. Coss  
his Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM WILSON WALLACE, OF MANSFIELD, OHIO.

## FEEDING DEVICE FOR SELF-BINDERS.

SPECIFICATION forming part of Letters Patent No. 638,531, dated December 5, 1899.

Application filed February 1, 1899. Serial No. 704,175. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM WILSON WALLACE, a citizen of the United States of America, and a resident of Mansfield, county of Richland, State of Ohio, have invented certain new and useful Improvements in Feeding Devices for Self-Binders, of which the following is a specification.

This invention relates to a new and useful improved feeding device for self-binders.

The object of my improvement is to construct a feeding device for self-binders by means of which the straw, grain, &c., are uniformly and regularly and positively fed to the packer-arms, thereby obviating any clogging, choking, hanging, or backing up of the straw, grain, &c., against the web or elevator, making it necessary to remove the obstruction before the binder can be operated, thus adding to the expense and labor of operating the binder.

I overcome the above defects by means of my improved feeding device for self-binders by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side view of a machine constructed in accordance with my invention. Fig. 2 is a bottom plan view of a machine constructed in accordance with my invention attached to the deck of the binder. Fig. 3 is a sectional end view showing position of feeder-teeth. Fig. 4 is a detached sectional view showing feeder-teeth and link for crank-shafts. Fig. 5 is a perspective view of a machine with my improvements attached.

Similar letters refer to similar parts throughout the several views.

The table A is the deck of the binder to which my improvement is attached.

B shows the standard, which is used as a bearing for the primary crank-shaft D. H shows the bearing in said standard B. The sprocket-wheel C is used to drive the primary crank-shaft D. The square sleeve F, into which is fitted the end of sprocket-shaft G, is for the purpose of keeping the sprocket-wheel and chain which passes over it in proper alinement and connect with the pri-

mary crank-shaft D. The primary crank-shaft has a sprocket-wheel C thereon, by means of which it is driven through a chain (shown in Fig. 5) from some moving part of the machine. A secondary crank-shaft E is parallel with shaft D and receives motion therefrom through a chain of gear-wheels J, K, and L, which intermesh with one another. Motion is also communicated from one shaft to another through the links I I, connecting the opposite cranks of the two shafts, these links I I having the teeth M M thereon and forming a part thereof. The teeth M M are formed and disposed substantially as shown, the upper one being bent or curved outwardly toward the elevators in order to take the straw at that point as fast as it is fed by the elevators, and thereby prevent clogging of the feed, and the remaining three teeth curve or bend in the opposite direction to insure a positive downward feed of the grain toward the binder-needle. While one series of the feeder-teeth is below the deck the other series is above, as shown on Fig. 3 at a, one series of feeder-teeth being in advance of the other series, as shown by the position of the feeder-teeth in slots O. The gears or cogs L K J are for the purpose of giving a uniform, positive, and regular motion to the crank-shafts D and E.

It is important that the teeth M M should strike into the grain just as close to the elevator-belts as possible, and consequently the deck A must be shortened at the upper edge to bring about this result. To accomplish this, the reinforcing-strip R is secured beneath this upper shortened edge of the deck by supports P P.

The hangers S are secured to the deck of the binder and supports the primary and secondary crank-shafts D and E. N designates the bearings for said crank-shafts. T shows the relative position of the cranks on primary shaft D and secondary shaft E.

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

The combination with a slotted inclining deck, of a pair of parallel crank-shafts, links

extending from a crank on one shaft to an  
opposite crank on the other shaft, sets of  
teeth connected with said links, the upper  
tooth of each set bent or curved upward and  
5 backward to take the grain from the upper  
ends of the elevator-belts and the remaining  
teeth of each set curved or bent downwardly  
in the opposite direction to impart a positive  
downward feed to the grain toward the nee-  
dle and packer-arms. 10  
Signed by me, at Mansfield, Ohio, this 30th  
day of January, 1899.  
WILLIAM WILSON WALLACE.  
Witnesses:  
JOSEPH FERNYAK,  
MARTIN DAY.