

(No Model.)

2 Sheets—Sheet 1.

J. J. GUIDINGER.
ELEVATOR FOR GRAIN SELF BINDERS.

No. 597,847.

Patented Jan. 25, 1898.

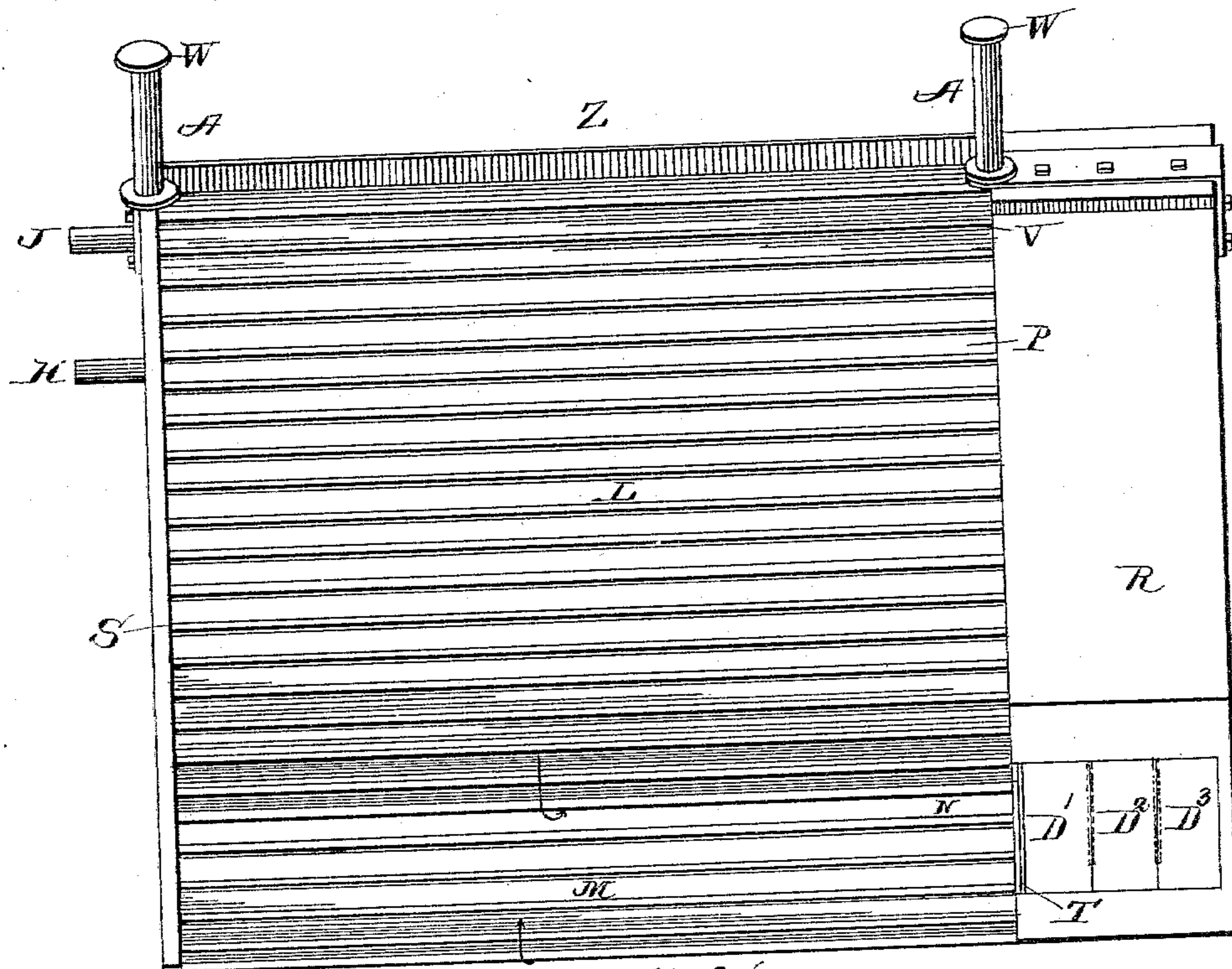


Fig. 1.

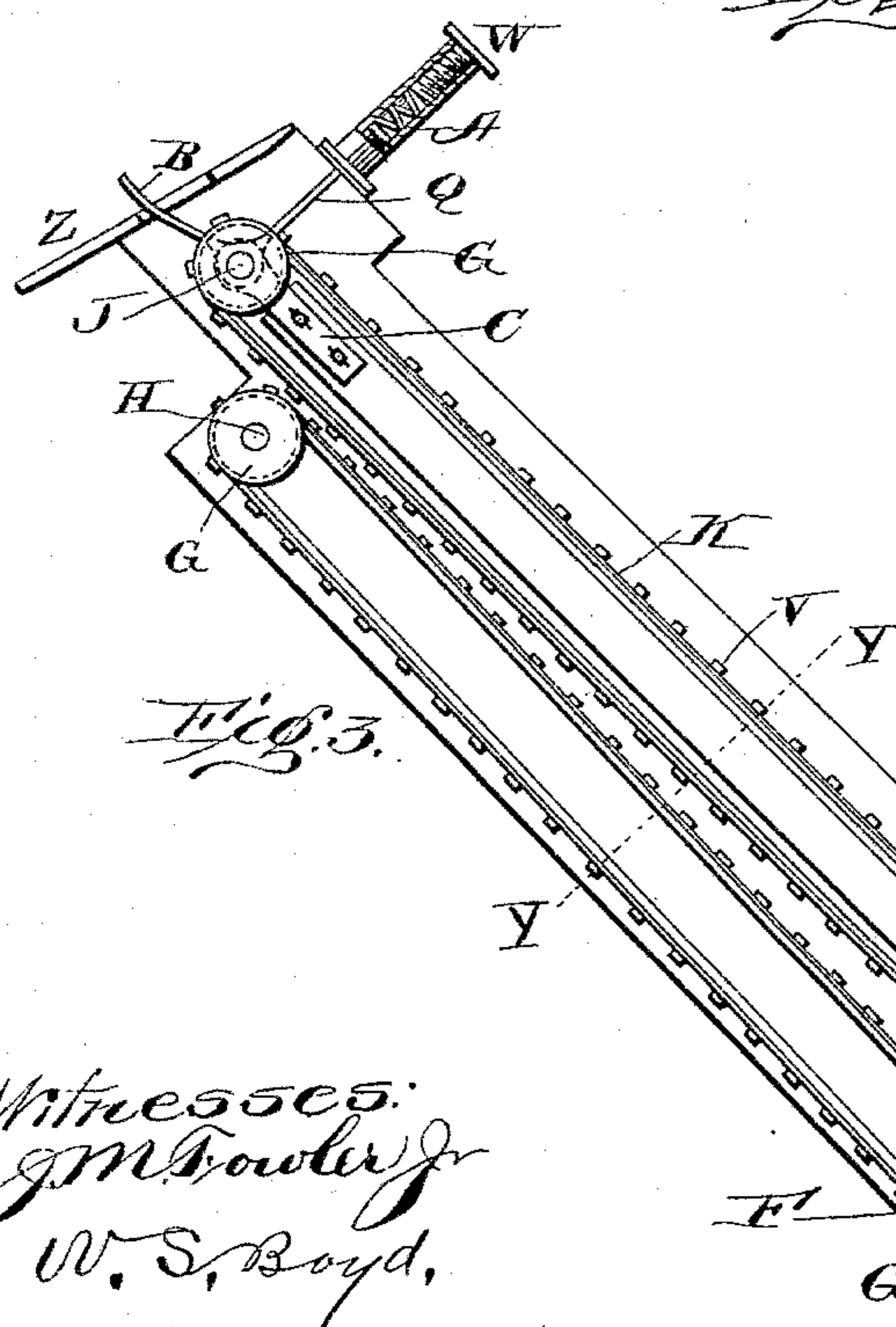


Fig. 3.

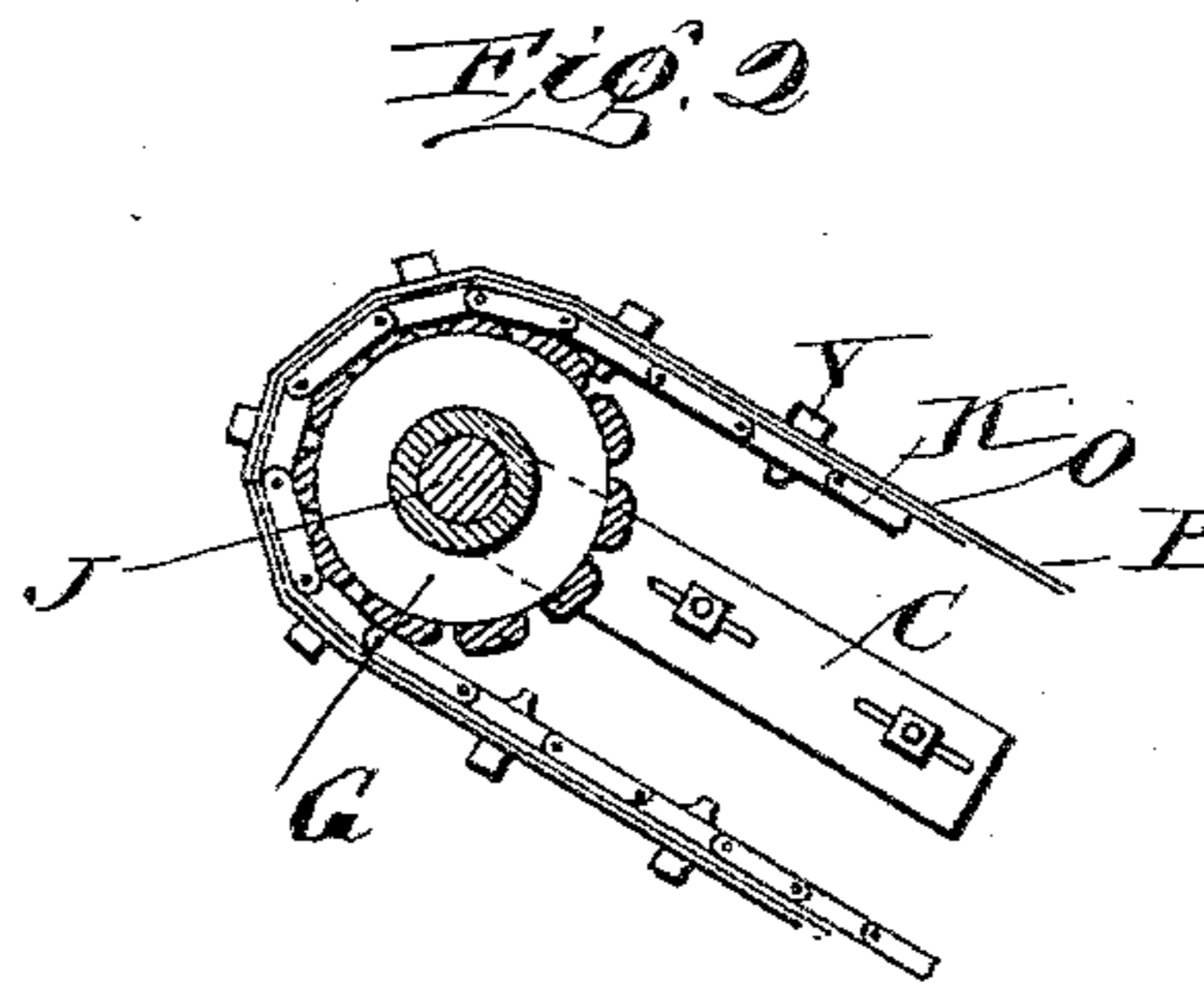


Fig. 2.

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W. S. Boyd,

Inventor

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By Patrick O'Farrell
Inventor.

(No Model.)

2 Sheets—Sheet 2.

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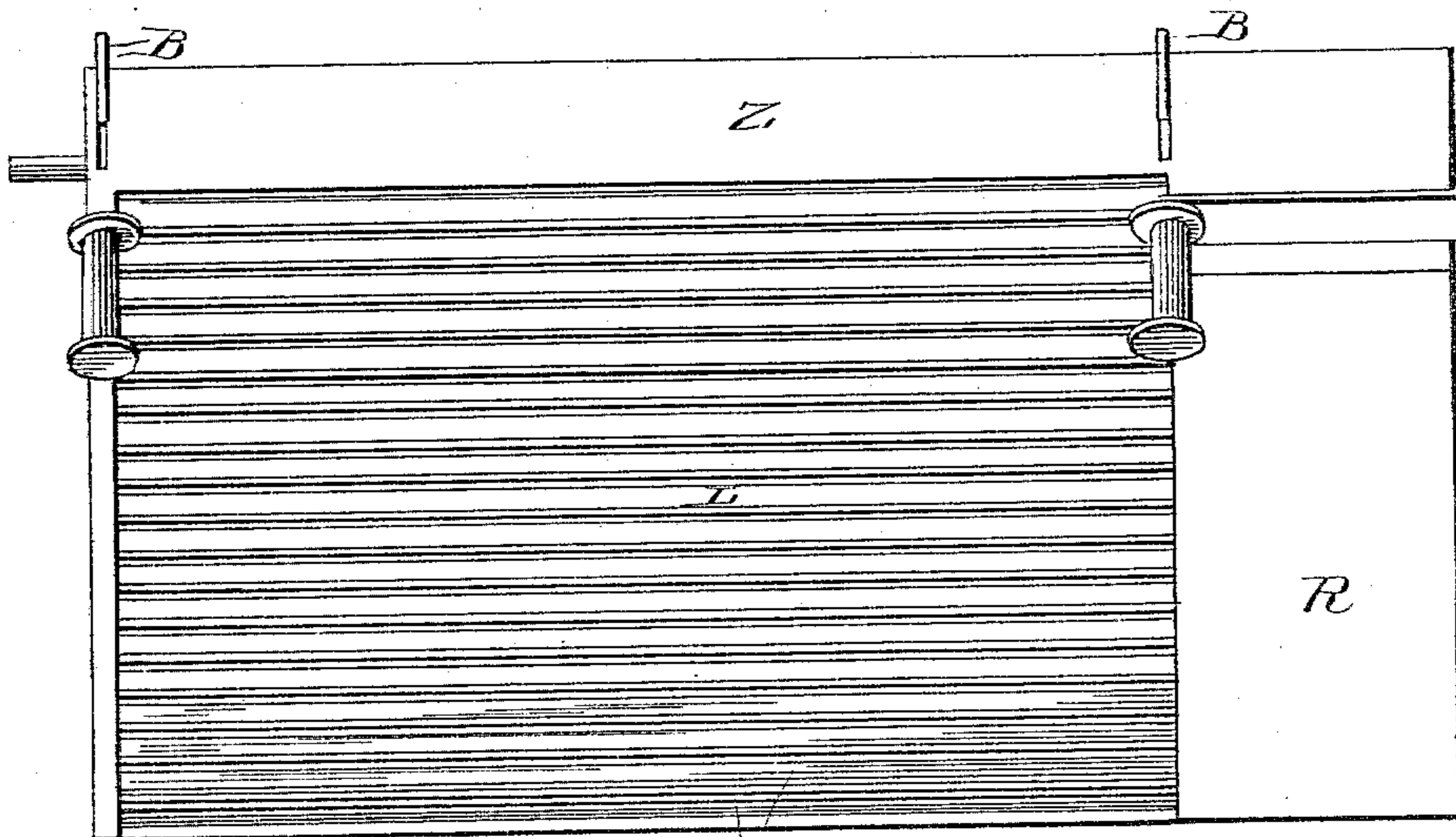


Fig. 5.

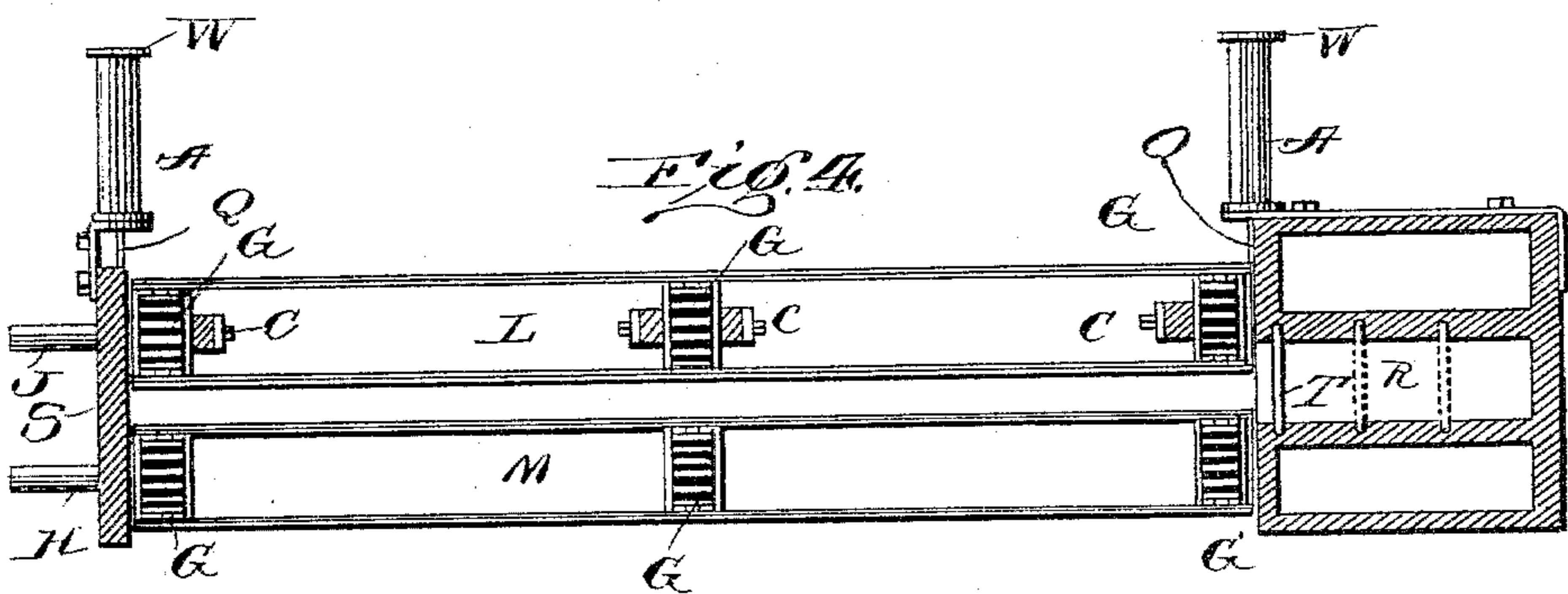


Fig. 4.

Witnesses:

M. Bowler
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John J. Guidinger
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UNITED STATES PATENT OFFICE.

JOHN J. GUIDINGER, OF NORTHEIM, WISCONSIN.

ELEVATOR FOR GRAIN SELF-BINDERS.

SPECIFICATION forming part of Letters Patent No. 597,847, dated January 25, 1898.

Application filed February 10, 1896. Serial No. 578,766. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. GUIDINGER, a citizen of the United States, residing at Northheim, in the county of Manitowoc and State of Wisconsin, have invented a new and useful Improvement in Elevators for Grain Self-Binders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement to the platform and elevators of grain self-binders; and the object is to make this elevator and platform so adjustable that it will elevate all kinds of grain properly and easily and deliver same to the binding apparatus without causing delay in the progress of the work by choking or clogging the grain or otherwise.

This invention further consists in an adjustable extension of the frame, between the parts of which the grain is elevated, so as to elevate long or short grain with equal facility.

This invention also consists in the spiral or other springs attached to the platform of the grain-elevator, so adjusted as to allow the sheaves to separate readily and to allow the surplus grain to pass through without choking or clogging the machinery of the elevator.

This invention also comprises the detail construction, combination, and arrangement of parts substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of elevator. Fig. 2 is a section of sprocket-chain and sheave for operating the canvas belts. Fig. 3 is a side elevation of elevator with side frame (marked S) removed. Fig. 4, Sheet 2, is a section on line Y Y of Fig. 3, Sheet 1; and Fig. 5 is a rear elevation.

Referring to the drawings, Sheet 1, M and L designate the elevator of a self-binder now in general use, which is stationary and not adjustable.

M represents the lower part of an elevator,

and L indicates the upper part. These two parts, forming the elevator, are now in a stationary position and so far apart as to allow the grain to be elevated between them. Sheaves G G are journaled in the ends of the parts M and L, and two elevator belts or aprons P P are mounted upon the sheaves with their adjacent faces so close to each other as to clamp the grain between them and carry it to the top of the elevator. Wooden strips V are fastened across the canvas belts to form what would be called "buckets" in an ordinary elevator for other purposes. The difficulties arising from the permanent distance in which the two canvas belts are kept are that when the grain is very heavy and thick the elevator will choke and clog and will not carry the extra amount delivered to it from the sickle-platform U. On the other hand, if the grain is very light and thin the elevator will not deliver the same properly to the binder. Now in order to obviate this spiral or otherwise shaped springs A A are set on top and upper ends of side frames S and R. The springs are connected with the upper part of elevator F by rods Q. These springs can, through screw-caps W, be so adjusted that the member L will be so close to the lower member M of elevator that the lightest grain will be elevated, and if more and heavier grain is delivered to the elevator the upper member of same will adjust itself to this amount by the springs A A. (Indicated in drawings.) To allow the longer grain to be elevated, as set forth, the side frame R is made U-shaped, with its opening turned toward the elevator, and forming in that way an extension of the space through which the grain passes while being elevated. This space can be adjusted to the length of the grain by a slide T, which is a thin strip of wood or other material of the length of frame R and which fits into grooves in the extension, as shown in Fig. 4, Sheet 2. The slide can be changed to the different positions, as shown by dotted lines, Figs. 1 and 4. The opening of the extension at lower end and outside of slide is closed by blocks D' D² D³, as indicated by Figs. 1 and 3.

In Fig. 3 there is shown a rod B, which is to prevent grain from being carried around the upper sheaves G of member L of elevator.

This rod is slipped over shaft J and passes with the other end through the cover Z, in order to follow the motion of member L.

Fig. 2, Sheet 1, indicates sheaves G and sprocket-chain K, while sheave G has slots conforming with sprocket in chain, whereby a motion of sheave G will be transmitted to chain K. The canvas carrying-belt is fastened to this chain K by means of a leather or rubber belt O and rivets. In order to allow an adjustment of chain K, shaft J can be adjusted by means of member C, as indicated in Figs. 2 and 3.

It is obvious that minor changes may be made in the construction of the different parts, and I reserve the right to make such changes as will come within the spirit of my invention.

I claim as my invention—

1. In an elevator for grain-binders, the combination, with a frame, one side of which is substantially U-shaped in cross-section, the upper and lower walls of said side being grooved longitudinally, a removable slide within said grooves, and endless elevator-

aprons within the frame, substantially as set forth.

2. In an elevator for grain-binders, the combination, with a frame, one side of which is substantially U-shaped in cross-section, of an adjustable board within said side, removable blocks for closing the space at the lower end of said side between the board and the outer portion thereof, and endless elevator-aprons within the frame, substantially as set forth.

3. In an elevator for grain-binders, the combination, with a frame, the upper end of which is provided with a cover, endless elevator-aprons journaled within the frame, and a rod secured to the upper bearings of the upper elevator-apron and projecting through the cover, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. GUIDINGER.

Witnesses:

L. PITZ,

B. E. WILCOX.