

(No Model.)

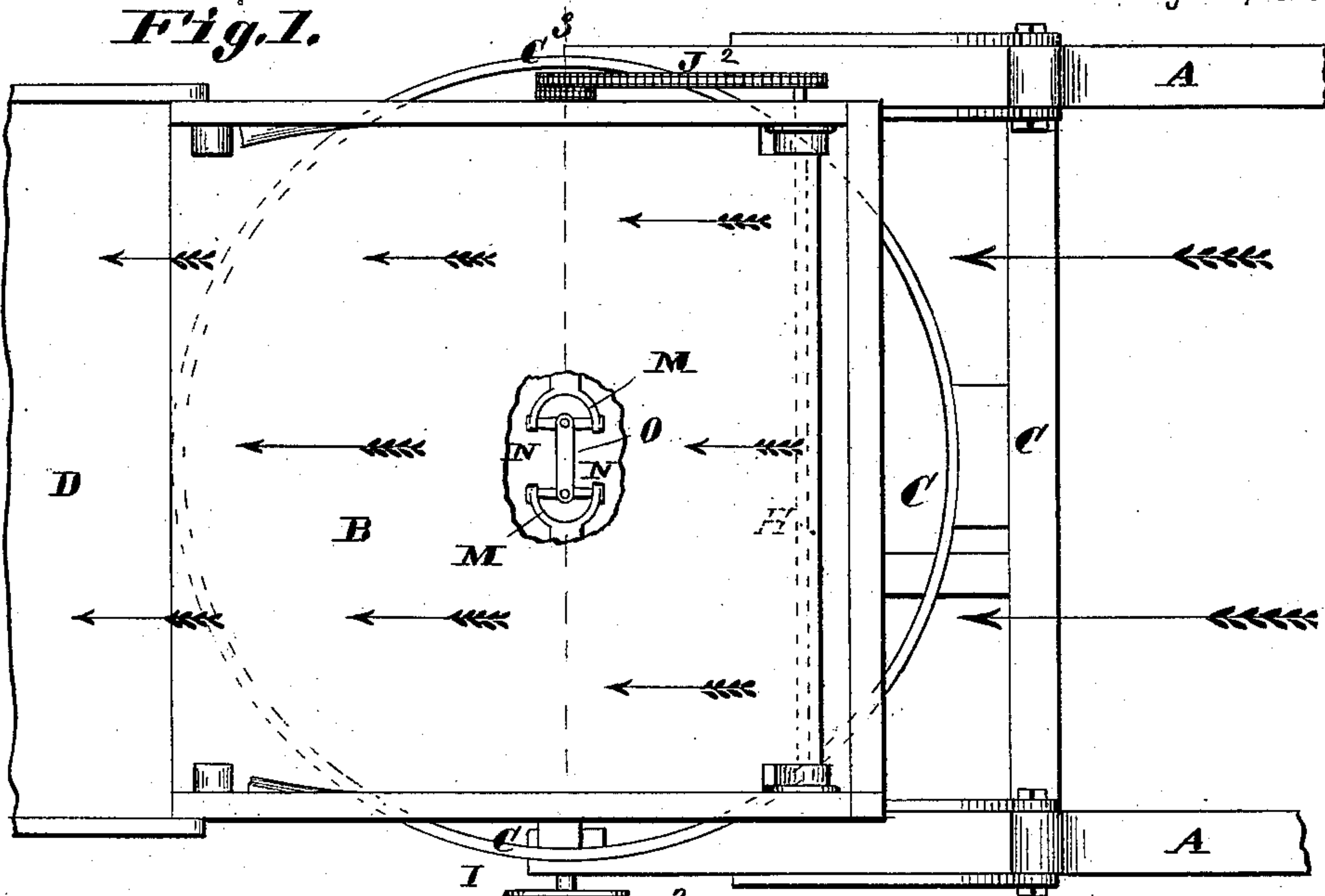
D. D. & P. J. SPRAGUE.

STRAW STACKER FOR THRASHING MACHINES.

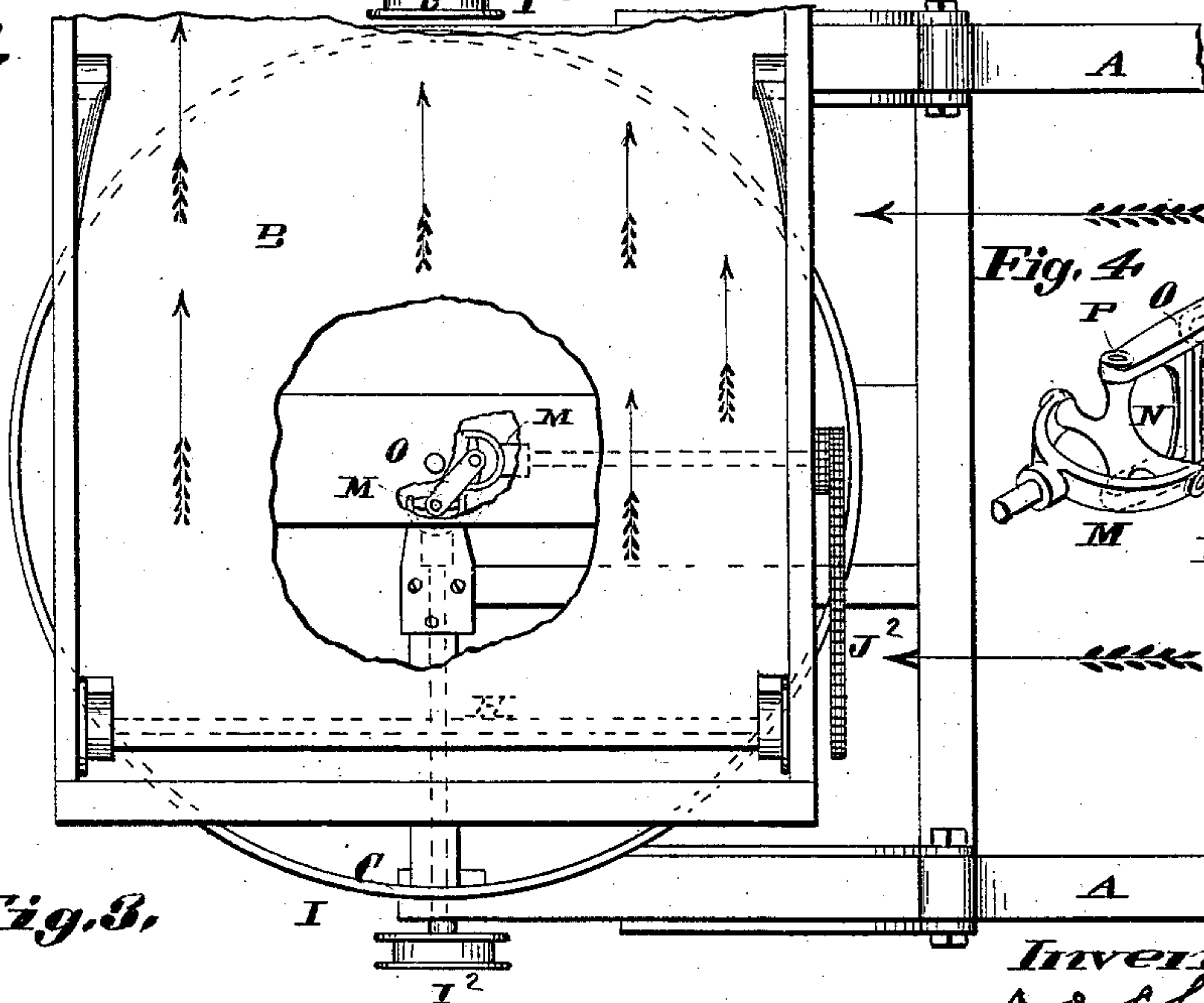
No. 298,250.

Patented May 6, 1884.

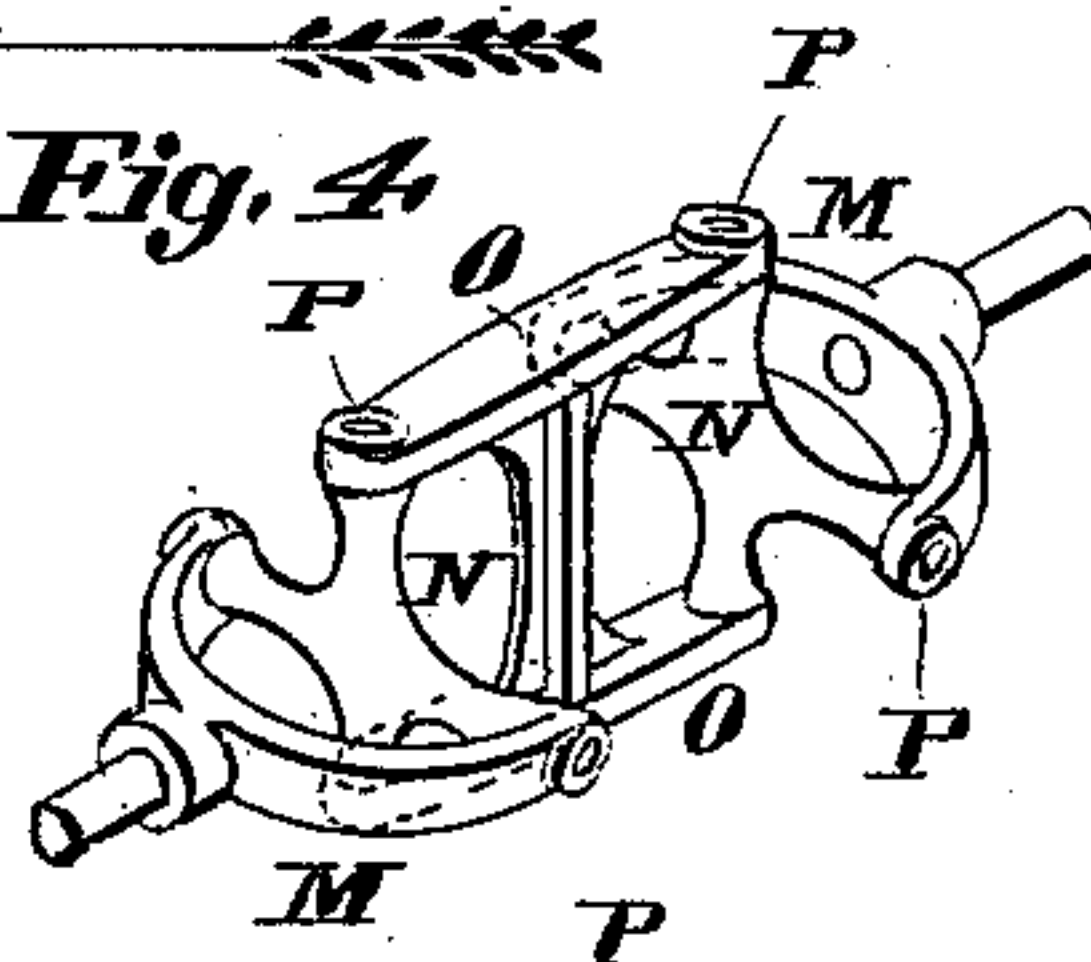
*Fig. 1.*



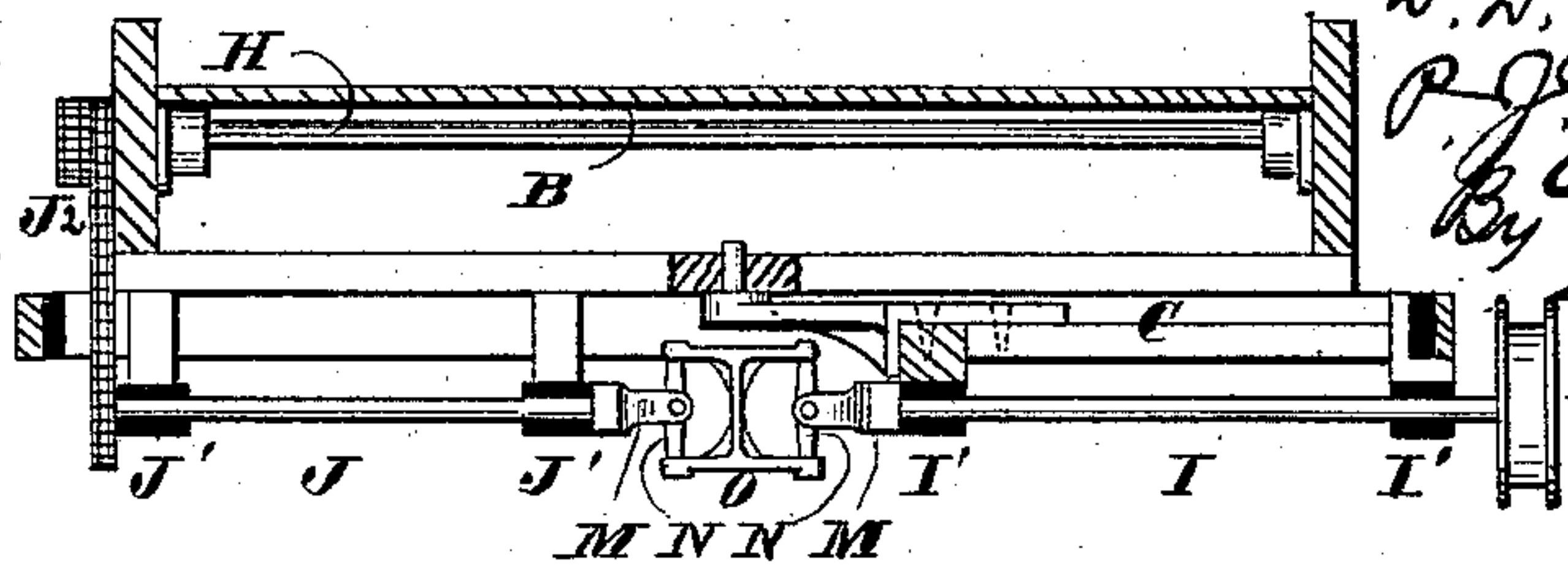
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



*Attest:*

*Charles P. Riddle*  
*Geo. S. Wheelock*

*Inventors,*

*D. D. Sprague*

*P. J. Sprague*

*By Knight Bros*

*Attys*



# UNITED STATES PATENT OFFICE.

DUDLEY D. SPRAGUE, OF CALIFORNIA, AND PEARLEY J. SPRAGUE, OF  
HIGBEE, MISSOURI.

## STRAW-STACKER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 298,250, dated May 6, 1884.

Application filed January 9, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, DUDLEY D. SPRAGUE, of California, Moniteau county, and PEARLEY J. SPRAGUE, of Higbee, Randolph county, Missouri, have invented a certain new and useful Improvement in Straw-Stackers for Thrashing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming  
10 part of this specification, in which—

Figure 1 is a top view showing the elevator-frame and intermediate carrier in line with the sills of the machine. Fig. 2 is a similar view showing the frame and carrier turned at right  
15 angles to the machine. Fig. 3 is a vertical section taken on line 3 3, Fig. 1; and Fig. 4 is an enlarged perspective view of the universal coupling.

This invention relates to an improved coupling for connecting the driving-shafts beneath the intermediate carrier-frame which supports the stacker-frame.

The invention consists in features of novelty hereinafter fully described, and pointed out in  
25 the claims.

Referring to the drawings, A A represent the sills of a thrashing-machine; B, an intermediate carrier; C, a frame which supports the intermediate carrier and to which it is pivoted;  
30 D, part of the elevator-frame, and H the raddle-shaft. I represents the shaft which is secured to the frame which supports the intermediate carrier by journal-boxes I'. This shaft receives motion from the machine by means of a belt which passes over a pulley, I<sup>2</sup>, on the  
35 outer end of the shaft. J represents the shaft that is secured to the intermediate carrier by journal-boxes J'. This shaft is connected to the raddle-shaft H by a suitable belt, J<sup>2</sup>, running over pulleys secured to the outer ends of the shafts. All of these parts may be of any ordinary specific construction, as there is no connection between their form or construction and the essential feature of our present  
45 invention.

The driving of the raddle of the elevator-frame with power from the machine, and the connection of the driving-shafts I J in such a manner that they will not interfere with nor  
50 themselves be affected by the horizontal vibra-

tion of the intermediate carrier and elevator-frame, have heretofore been accomplished by means of a pivot-gear arrangement, such as is shown in our Reissue Patent No. 10,406, dated November 20, 1883. To accomplish this same  
55 result with a means more simple, more durable, cheaper, and less liable to get out of order, we have devised a novel arrangement of a double universal coupling for connecting the shafts, which we will now describe. The inner end of each shaft is provided with a yoke or arms, M, of suitable form, and to each of the yokes are secured tumbler-blocks N of any desired shape or form. We have shown them  
(see Fig. 4) consisting of a central body having four arms, to two of which the yokes are secured, and to the other two of which are secured the ends of a connecting block or link, O, that also may consist of any desired shape or form. The yokes and connecting-block  
60 may be secured to the tumbler-blocks by any suitable means. We have shown them connected by means of pins P; but it is necessary that a journal-connection be made between them to allow the intermediate carrier and the  
65 elevator-frame to be turned at an angle to the machine, and when the parts are in this position the tumbler-blocks would have a wobble motion imparted to them, which also necessitates a journal-connection between them and  
70 the yokes and connecting-block. We do not wish to confine ourselves in any way to the shape or form of the tumbler-blocks; and they may consist of mere rings, to which the yokes and connecting-block would be secured; nor  
75 do we wish in any way to confine ourselves to the shape or form of the yokes or arms M, or the connecting block or link O. By this improved manner of connecting the shafts I J the elevator-frame and intermediate carrier  
80 may be turned at any angle to the machine without being interfered with or affecting the operation of the driving mechanism, and there is nothing to wear or get out of order about a connection of this kind, while at the same time  
85 it is cheaply produced, is strong, and the friction incident to cog-gearing, above mentioned, is avoided.

It is evident from the nature of our coupling that one of the shafts I J will have to  
90



have a slight endwise movement, as one is turned at an angle to the other; but this movement is so slight as not to affect the connection between the shaft I and the machine or the shaft J and the raddle-shaft; but even this slight endwise movement of the shafts, or one of them, may be avoided, if desired, by simply connecting one of the yokes M to its shaft by means of a feather and groove, to allow it to slide thereon.

We claim as our invention—

1. In a stacker for thrashing-machines, the combination of a stacker-frame, a carrier-belt shaft on the stacker-frame, an intermediate frame supporting the stacker-frame, driving-shafts, and double universal joint connecting the driving-shafts in the vertical pivotal line of the carrier-frame, as set forth.

2. In combination with a thrashing-machine

frame, a stacker-frame, and a laterally-movable carrier-frame supporting the stacker-frame, a carrier-belt shaft on the stacker-frame, two driving-shafts, and a coupling consisting of two tumblers, to which the adjacent ends of the shafts are secured by suitable yokes or arms, and a block connecting the tumblers, substantially as and for the purpose set forth.

DUDLEY D. SPRAGUE.

PEARLEY J. SPRAGUE.

Witnesses to the signature of Dudley D. Sprague:

GEO. H. KNIGHT,

SAML. KNIGHT.

Witnesses to the signature of Pearley J. Sprague:

J. B. TYMONY,

J. M. RENNOLDS.