

No. 672,732.

Patented Apr. 23, 1901.

G. F. CONNER.
PNEUMATIC STRAW STACKER.

(Application filed May 3, 1900.)

(No Model.)

Fig. 1.

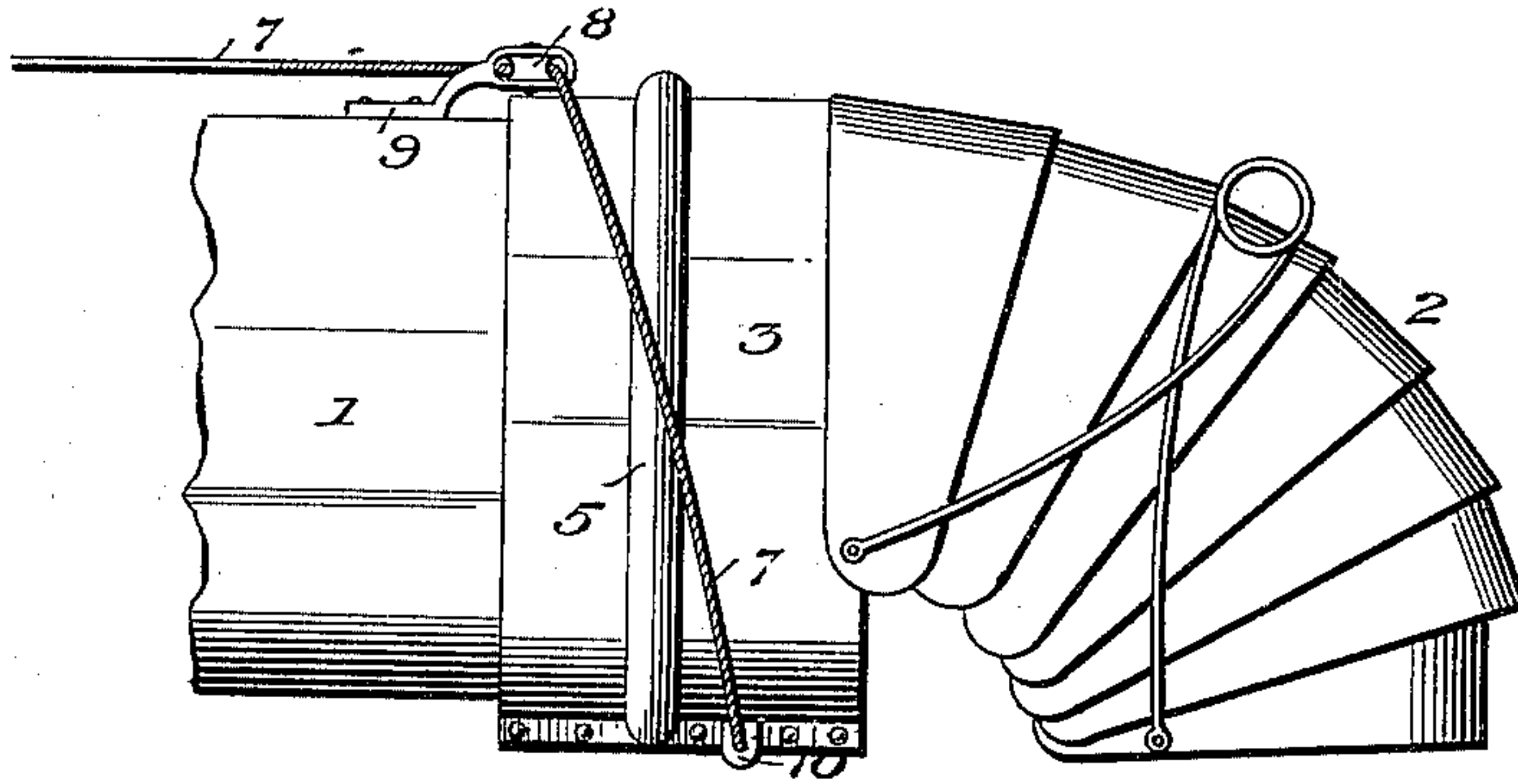


Fig. 2.

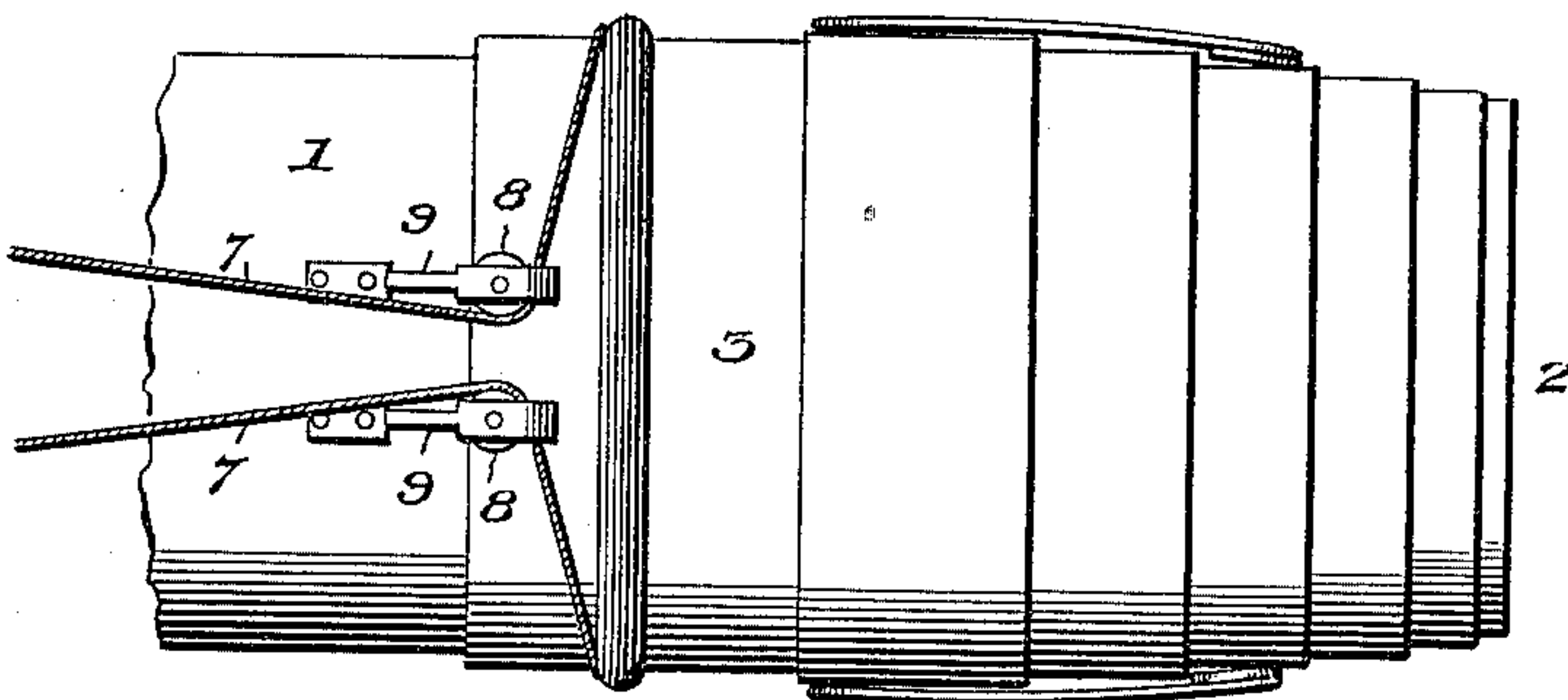
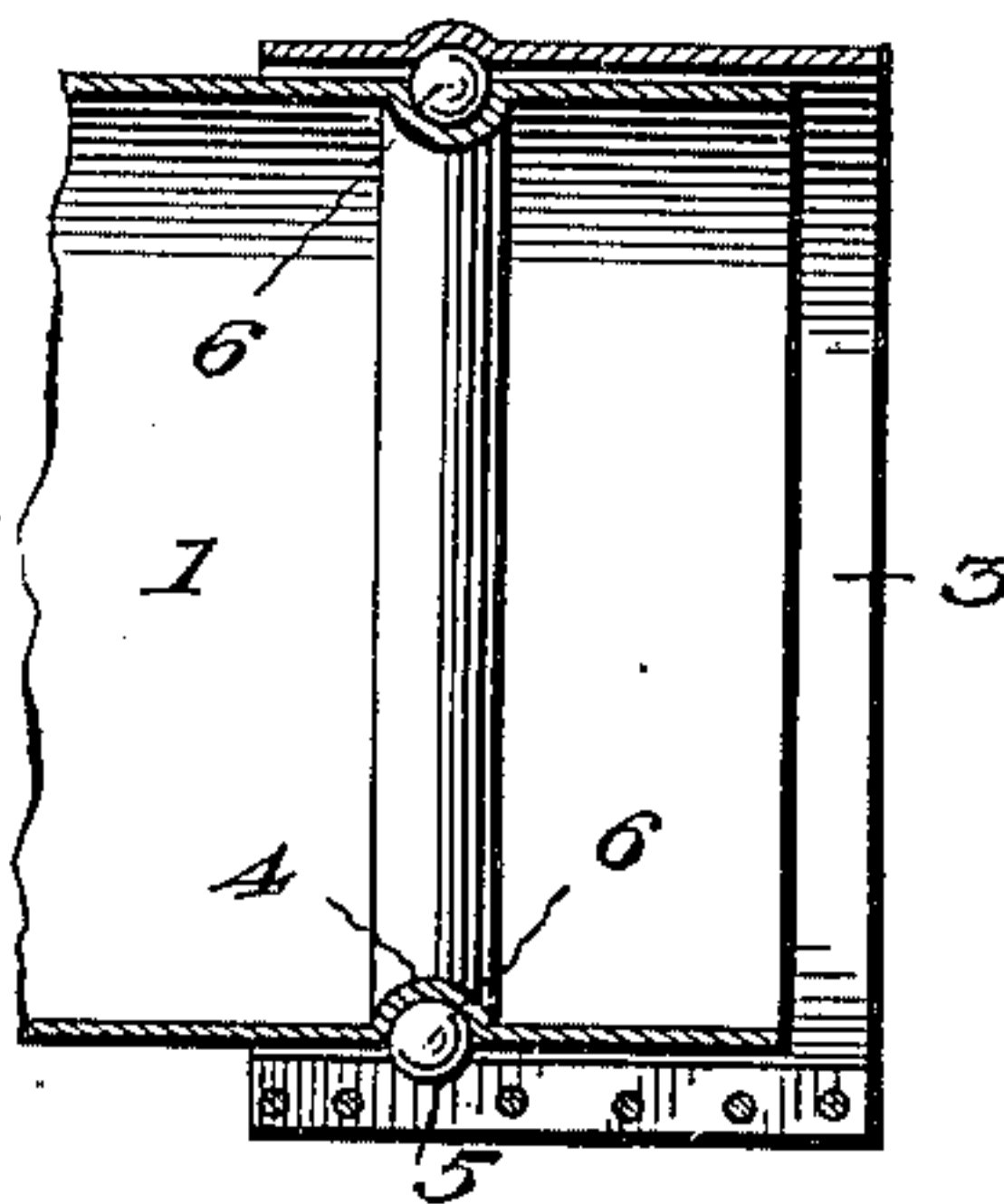


Fig. 3.



Witnesses

Wm. E. Conner
James Wilson

Inventor
George F. Conner.
A. B. Wilson & Co.
Attorney

UNITED STATES PATENT OFFICE.

GEORGE F. CONNER, OF PORT HURON, MICHIGAN.

PNEUMATIC STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 672,732, dated April 23, 1901.

Application filed May 3, 1900. Serial No. 15,378. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. CONNER, a citizen of the United States, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Pneumatic Straw-Stackers; and I do 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.

The invention relates to pneumatic straw-stackers, and more particularly to the manner of mounting the deflecting-hood on the outer end of the stacker-tube.

In the construction of pneumatic straw-stackers it is common to provide the stacker-tube at its outer end with a deflecting-hood, either made of sliding sections or in one piece, and to so mount the hood that it may have its discharge end swing at various angles to the length of the stacker-tube to discharge the straw at different points. In some instances the hood is provided with a sleeve which snugly fits the outer end of the stacker-tube, and in other instances the sleeve and stacker-tube are provided with a coacting track-frame and rollers, the one carried by the stacker-tube and the other by the sleeve of the hood. Both of these constructions are objectionable and have serious disadvantages. In the first place, where the sleeve of the hood snugly fits the outer end of the stacker-tube to turn with respect to the same the parts are very apt to bind, due to the formation of rust when the machine is left standing unused between harvesting seasons, or this binding may result from the denting of one of the parts in the rough usage of the machine. The provision of the roller-frame is objectionable for the reason that it not only adds materially-increased expense in the manufacture of the stacker, but additional weight at a point where it is desirable to have as little weight as possible to permit of the easy manipulation of the stacker-tube in swinging it from one position to the other.

It is the object of the present invention to provide simple, durable, and inexpensive means for connecting the deflecting-hood to the stacker-tube, so as not to materially increase the weight of the parts at that point,

while at the same time the hood may have a free rotary movement with respect to said tube to permit its discharge end to be swung at angles to the length of the stacker-tube.

With these and other objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a side elevation of the outer end of a stacker-tube and the deflecting-hood secured thereto. Fig. 2 is a top plan view; and Fig. 3 is a vertical sectional view through the outer end of the stacker-tube and the hood-sleeve, showing the antifriction-rollers mounted between the two.

Referring to said drawings, 1 denotes the outer end of the stacker-tube, 2 the deflecting-hood, and 3 the hood-sleeve. The sleeve and the tube are formed with annular coinciding grooves 4 and 5, the one being pressed inwardly and the other outwardly. These grooves constitute a roller-race in which are arranged rollers 6, which may be either spherical or cylindrical. By this construction the outer wall of the tube and the inner wall of the sleeve are separated one from the other, as shown in Fig. 3, thus permitting a free axial movement of the hood with respect to the tube. Furthermore, this form of construction makes a much better working joint, as the centers of the rollers are brought in line with the space between the sleeve and the tube, making a flexible and much easier working joint. Any means may be provided for swinging the hood; but those shown in the accompanying drawings are preferred and consist of ropes 7, passing over sheaves 8, supported in brackets 9, secured to the outer end of the tube and having their extreme outer ends secured to a lug or arm 10, secured to the lower side of the sleeve. When it is desired to swing the hood to the right, the right-hand rope is operated, and when it is desired to swing it to the left the left-hand rope is operated.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood without requiring an extended explanation. It is apparent that the parts will not bind

even though the sleeve should be dented or the tube and the sleeve become rusted, inasmuch as the sleeve is separated from the tube by the roller-bearings. The stacker-tube referred to may be of any well known or approved design, and so may also the hood.

Having thus fully described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a pneumatic straw-stacker, the combination with the stacker-tube and the hood, the latter being provided with a sleeve, the sleeve and the tube having annular coinciding grooves, the groove of the sleeve extending outside of its circumference, and the groove of the tube extending inside of its circumference, the walls of the groove being of uniform thickness with the walls of the tube and sleeve, balls in said grooves, the centers of said balls being in line with the space between the sleeve and the tube, and means for

revolving the sleeve and hood about the tube, substantially as set forth.

2. In a pneumatic straw-stacker, the combination with the stacker-tube and the sleeve mounted to rotate thereon, the sleeve and the tube having annular coinciding grooves, rollers in said grooves, the groove of the sleeve extending outside of its circumference and the groove of the tube extending inside of its circumference, whereby the centers of the rollers are brought in line with the space between the sleeve and the tube, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE F. CONNER.

Witnesses:

EARL C. AKERS,
G. R. HAIGH.