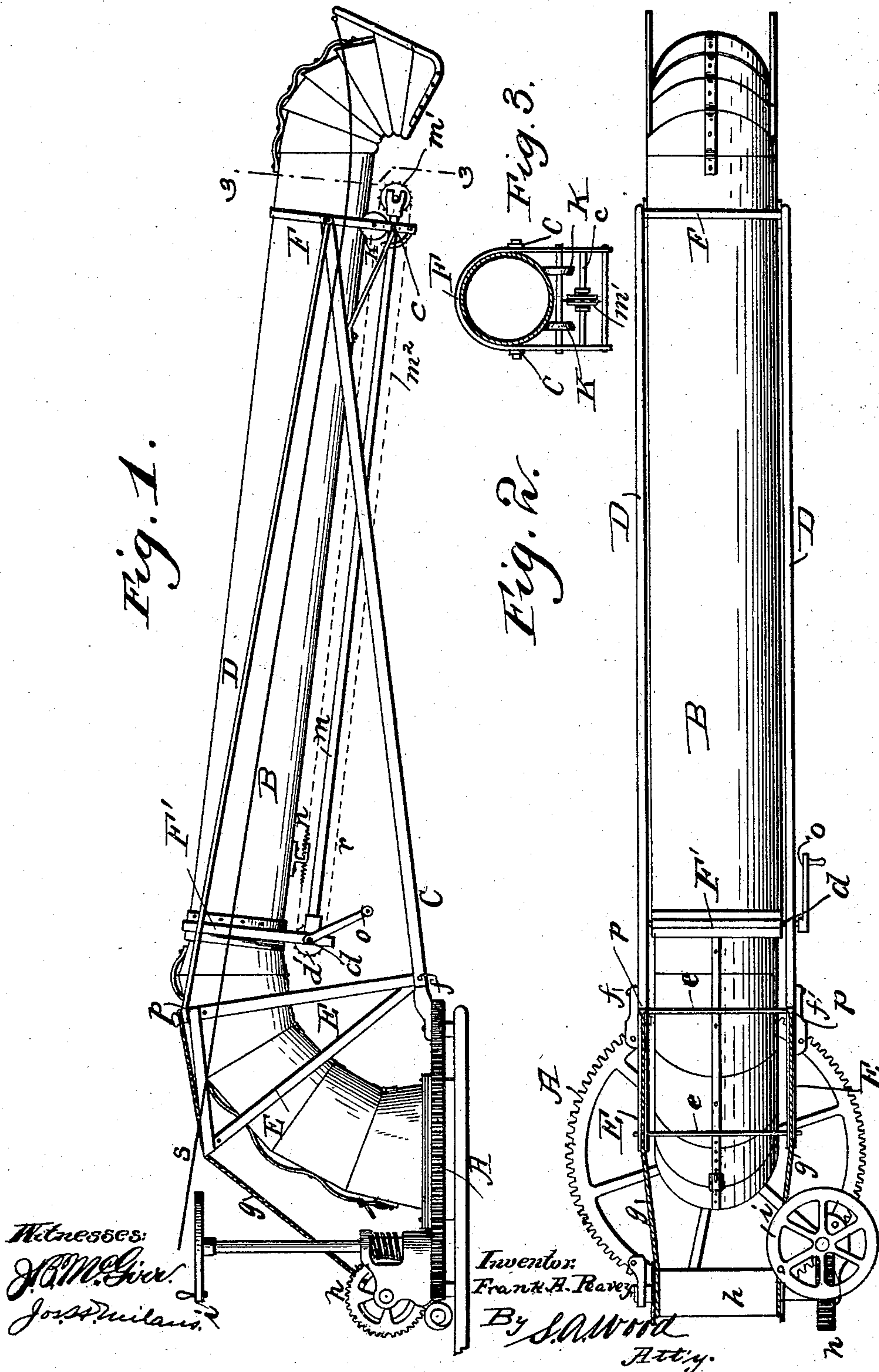


(No Model.)

F. A. PEAVEY.  
PNEUMATIC STACKER.

No. 572,768.

Patented Dec. 8, 1896.



Witnesses:  
J. M. Giv.  
J. S. Milam.

Inventor:  
Frank A. Peavey  
By S. M. Wood  
Att'y.



# UNITED STATES PATENT OFFICE.

FRANK ADAMS PEAVEY, OF PORT HURON, MICHIGAN.

## PNEUMATIC STACKER.

SPECIFICATION forming part of Letters Patent No. 572,768, dated December 8, 1896.

Application filed April 10, 1896. Serial No. 586,994. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK ADAMS PEAVEY, 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 Supports for Pneumatic-Stacker Pipes for Threshing-Machines; 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in supports or cranes used to sustain and manipulate the stacker-pipe of a pneumatic straw-stacker upon threshing-machines.

The objects of my invention are to construct such a crane in the lightest possible manner and so build it that its members will be subjected to direct compressional or tensional strains and not to torsional or bending strains; to so make it that it will occupy the minimum space, and to make a crane which, when not in use, can be folded into a small space.

With such objects in view my invention consists in two triangular levers or frames, preferably one on each side of the stacker-pipe, so connected with the pipe as to sustain it in its adjusted positions, and means for operating and holding the frame in the different adjustments of the pipe.

The invention further consists in the parts and combinations thereof hereinafter described and claimed.

In the drawings, wherein I have shown a practical embodiment of my invention and in which similar letters refer to similar parts throughout the several views, Figure 1 is a side elevation of a stacker-pipe with my invention applied thereto. Fig. 2 is a plan view, and Fig. 3 is a cross-section on line 3 3 of Fig. 1.

Referring to the drawings, A is a turn-table on which a stacker-pipe B rests and to which it is secured in any preferred manner. The pipe B is shown as comprising the adjustable base-elbow and hood and the telescoping sections, as is usual with these stackers.

It will be obvious that the elbow is formed

of sections hinged on their bottom side and formed with a strap or analogous means on top, adapted to permit the elbow to be flattened out horizontally on the thresher-top.

Pivoted at an angle to the table at *f* on each side of the stacker-pipe is a triangular frame or lever E of substantially the height that the pipe extends above the table when it is in a horizontal or lowered position. Above the pipe these levers may be connected by cross tie-bars *e e*.

From the lower or pivoted angle of the levers E extend bars C C, which I may term the "compression members of the crane," which bars are made quite rigid, as they sustain considerable of the weight of the stacker. Iron pipe has been found very satisfactory for these compression members. At the outer ends of the bars C C is attached a yoke or collar F, which straddles the movable section of the stacker-pipe.

D D represent tension bars or rods, each connected at one end to the yoke F and detachably connected at their opposite ends to the upper ends or angle of the triangular levers E. As the strain of these bars is always tensional they may be comparatively light, or they might be replaced by cables.

In the yoke F are mounted rollers or sheaves K, on which the movable section of the pipe is supported and adapted to move. Beneath the sheaves and connecting the ends of the yoke F is a connection *c*.

F' is a yoke or collar carried by the fixed section of the pipe B, in which yoke is journaled a shaft *d*, on which is a sprocket-wheel *d'*.

*m* is a rod connected to the yoke F' and having a sliding engagement with the connection *c*. At the end of the rod *m* adjacent to the yoke F' is suitably mounted a second sprocket *m'*. *m*<sup>2</sup> is a chain passing over said sprockets and secured, as at *n*, to the movable pipe-section. The chain can be conveniently operated to extend or contract the pipe by means of a crank *o* on the shaft *d*.

To elevate and lower the crane and the pipe carried thereby, I have shown mounted on the table A and adapted to be operated by any suitable means, such as a crank *i*, a windlass *h*. To the windlass are attached ropes *g g*, secured at their opposite ends to the uppermost points or angles *p p* of the levers E



E. The ropes *g g* follow the upper sides of the triangular levers from the points *p p*, which levers are provided at *s* with any suitable means to prevent the slipping of the  
5 ropes from the levers.

When it is necessary to fold the crane for entering a barn or low door, the rods *D D* are detached from the levers *E* at the points *p*, and the triangular levers are dropped down  
10 upon the turn-table, and the crane is swung around until it rests upon the top of the threshing-machine. This enables the crane to be folded into small compass, enabling it to pass through a low door. By my construction the levers *E* take the strain upon the  
15 chains at the points *s* when the crane is in horizontal position and at the point of greatest tension. As the crane is elevated the points *s* leave the chains, affording the leverage of the elevated point *p*. Thus it is seen  
20 that the cable is aided in elevating the crane by a strong leverage at all points in the circle through which it traverses.

It will be noticed from the drawings that  
25 the different parts of the frame or pipe supports form triangular members, that the greatest resistance is along the line projected by the different parts, that the greatest rigidity is secured, and at the same time the construction admits of much lighter parts than if  
30 the lines of force and strain did not coincide with the mechanical outlines of the device. At no position of the crane is the pipe which it carries subjected to any strain beyond that  
35 of gravity upon the point *k* and of gravity upon its bottom support on the turn-table.

It will further be seen from the drawings that the levers *E* do not rise above the pipe or elbow, so allowing the crane to pass through  
40 a low door. The use of a triangular lever giving a bearing and purchase first from the point *s* and as the crane rises from the point *p* enables me to dispense with the long lever generally employed in cranes for stacker-  
45 pipes as heretofore constructed; and the shape and construction of my levers bring the strain upon the chains on good lines, the effect being practically the same as if the side of the lever *E* from point *p* to point *s* was a

segment of the periphery of a wheel with hub 50 at *f*.

My crane supports the stacker-pipe as in a cradle and entirely without any strain upon the pipe when elevating or lowering it.

Having fully described my invention, what 55 I claim, and desire to secure by Letters Patent, is—

1. In a stacker, the combination with a stacker-pipe, and a support therefor, of two triangular levers one on each side of the pipe 60 and each pivoted to said support, a yoke straddling the pipe, rods connecting said yoke to the pivoted ends of said levers, members connecting said yoke with the upper ends of said levers, flexible members for operating 65 said levers engaging along the upper edges of the levers and positively connected to the levers at their uppermost points, substantially as described.

2. In a stacker, the combination with a 70 stacker-pipe, its elbow formed of hinged sections and adapted to be straightened out horizontally, and a support for the pipe, of two triangular levers one on each side of the pipe and pivoted to the support, a yoke straddling 75 the pipe, members connecting said yoke and the pivoted ends of said levers, members connecting said yoke and the upper ends of said levers, and means for operating the levers, said levers adapted to be turned down on the 80 support, substantially as described.

3. In a stacker, the combination with the stacker-pipe and a support therefor, of two triangular levers one on each side of the pipe and pivoted to the support, a yoke straddling 85 the pipe, rods connecting said yoke and the pivoted ends of said levers, rods attached to said yoke and having a detachable engagement with the upper ends of said levers, and means for operating said levers, substantially 90 as described.

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

FRANK ADAMS PEAVEY.

Witnesses:

C. L. PEAVEY,  
H. B. HOYT.