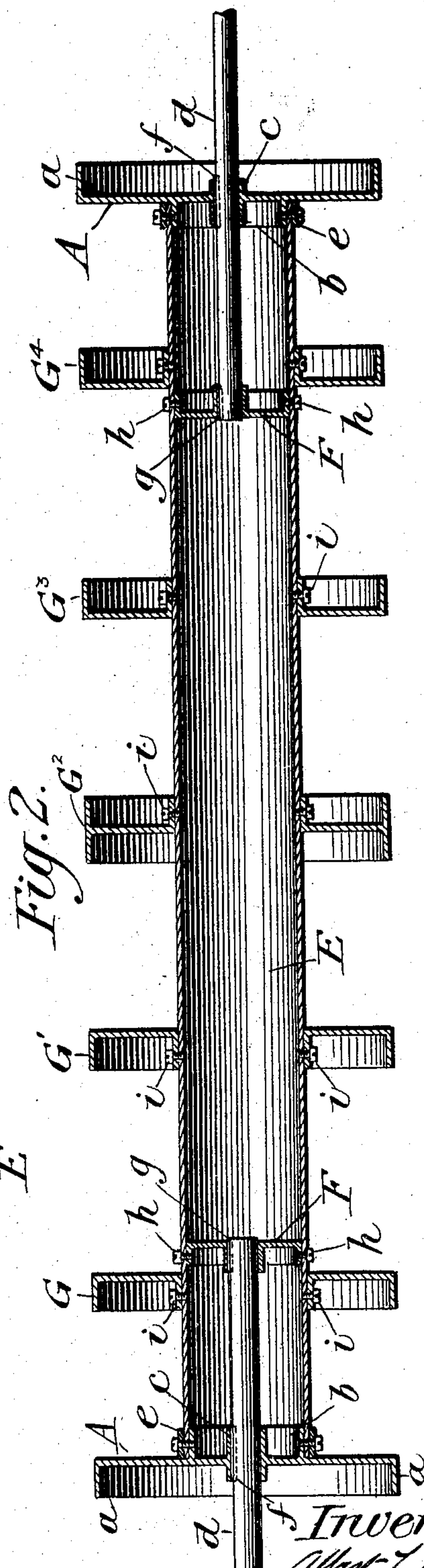
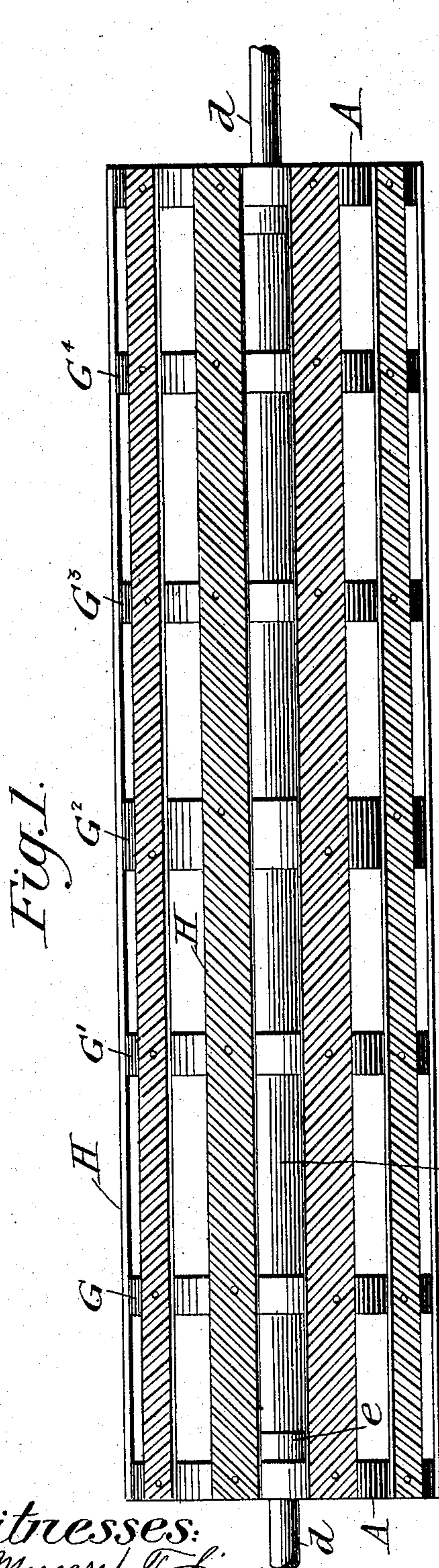


No. 806,537.

PATENTED DEC. 5, 1905.

A. L. GILL.  
CYLINDER FOR THRESHING MACHINES.

APPLICATION FILED DEC. 3, 1904.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ALBERT L. GILL, OF TRENTON, NEW JERSEY.

## CYLINDER FOR THRESHING-MACHINES.

No. 806,537.

Specification of Letters Patent.

Patented Dec. 5, 1905.

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*To all whom it may concern:*

Be it known that I, ALBERT L. GILL, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Cylinders for Threshing-Machines, of which the following is a specification.

My invention relates to cylinders used in threshing-machines for threshing or separating the grain from the straw by rubbing the heads of the grain between such cylinder and the concaves of the machine.

A defect common to threshing-machines adapted to preserve the straw of the grain threshed is the bending or distortion of the cylinder and its shaft when in use, due to the packing of bundles of straw or other objects entering the machine between the cylinder or concave with which it coöperates to separate the grain from the straw. This is a cause of very great damage to the machine and great inconvenience in its operation. Many efforts have been made by manufacturers of such machinery to overcome this defect, but with only limited success and then by the use of cumbersome and complicated devices.

The object of my invention is to provide a simple and efficient construction which will entirely obviate all said defect in such apparatuses.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side view of a cylinder embodying my invention; and Fig. 2 is a central longitudinal sectional view of the cylinder, the ribs or staves of the cylinder being removed.

At each end of the cylinder is a metal head A, which has a peripheral flange *a* extending outwardly at a right angle therewith. From the opposite side of the head A extends at a right angle therewith the flange *b*. The head A is also provided with the hub *c* to give it a proper bearing on the metal rod *d*. The heads A, with their flanges and hubs, are made preferably integral and of cast iron or steel.

E is a metal tube, preferably of a diameter approximating one-half of the diameter of the heads A and which at each end is reinforced on its outer side by a metal band *e*, encircling it. This tube E fits closely over the flange *c* of each head A, and its ends are brought flush up to the inner faces of the webs of said heads and firmly attached there-

to by set-screws, as shown in Fig. 2. Within the tube E and toward the ends thereof are small heads F F, which are provided with peripheral flanges formed at a right angle with the webs of the heads and with hubs, as shown in Fig. 2.

The rods *d d* are passed through the hubs of the heads A A and fixed firmly therein by splines or feathers *ff* in the well-known manner and are also fixed in the same way in the hubs of the heads F F by the splines or feathers *g g*. The said heads F F are firmly attached to the tube E by set-screws *h*, as shown in Fig. 2.

On the outside of the tube E are fixed the flanged heads or supports G G' G<sup>2</sup> G<sup>3</sup> G<sup>4</sup>, which, with the exception of G<sup>2</sup>, are formed similarly to the heads F, but of the same diameter of the heads A and with hubs of sufficient opening to encircle the tube E and to be firmly attached thereto with the set-screws *i*. (See Fig. 2.) The hub G<sup>2</sup> differs from the others in its peripheral flanges extending outwardly from both faces of its web.

To the heads A A and G G' G<sup>2</sup> G<sup>3</sup> G<sup>4</sup> are firmly attached the bars H by means of bolts passing through the bars H and the peripheral flanges of the several heads surrounding on inclosing the tube E. These bars H are made of iron or steel and are diagonally grooved on their outer faces, as shown in Fig. 1. The rods *d d* are journaled in the thresher and, with tube E, form the shaft of the cylinder to which power is transmitted to drive the same.

This construction forms a perfectly rigid shaft and cylinder which will not bend or yield to any pressure which may be placed upon it in use.

Having thus described my invention, I claim—

A threshing-machine cylinder, comprising gudgeons, heads secured thereon, said heads having inwardly-projecting flanges, a tube secured to said flanges, annular supports interposed between the interior of said tube and said gudgeons, annular supports secured to the exterior of said tube and longitudinal strips secured to the last-mentioned annular supports.

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