No. 685,107. Patented Oct. 22, 1901.

H. C. CLAY.

MEANS FOR SUPPORTING AND ADJUSTING CONCAVES.

(Application filed Feb. 25, 1901.)

(No Model.)

Fig. 1.

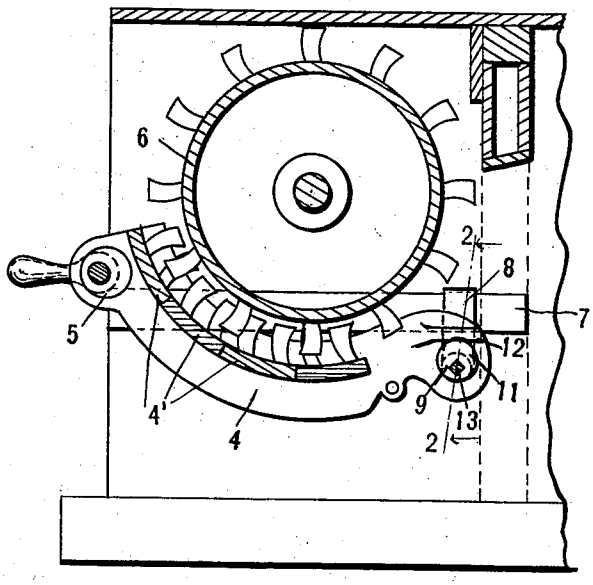


Fig. 2.

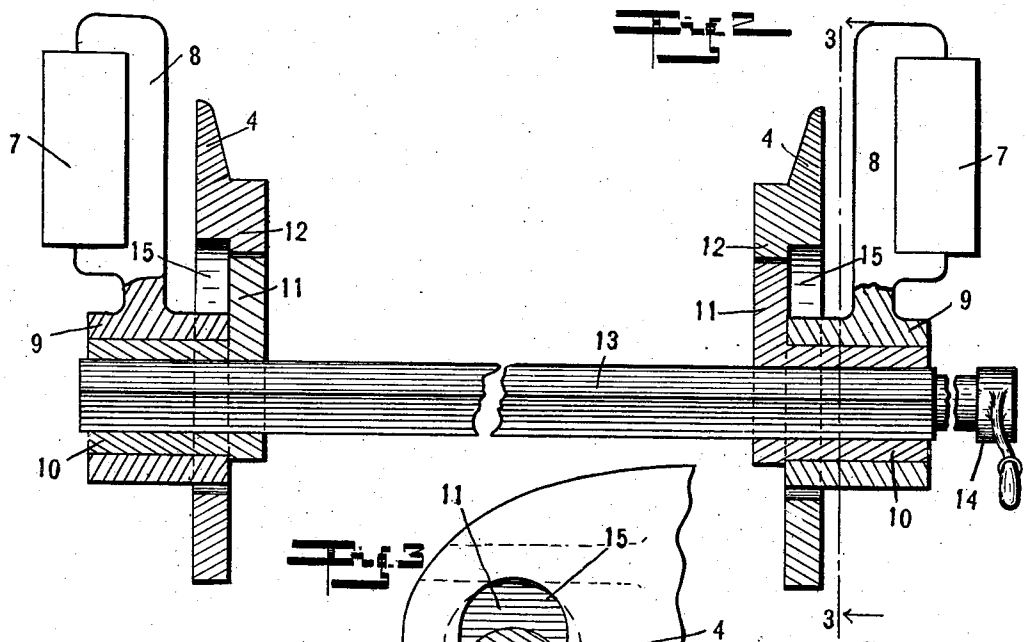
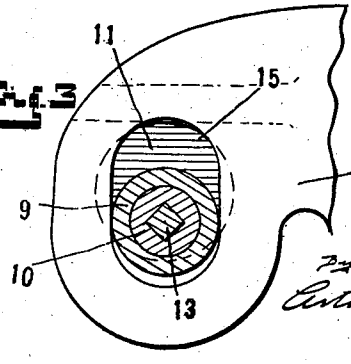


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY C. CLAY, OF COLUMBUS, INDIANA, ASSIGNOR TO REEVES & COMPANY, OF COLUMBUS, INDIANA, A CORPORATION OF INDIANA.

MEANS FOR SUPPORTING AND ADJUSTING CONCAVES.

SPECIFICATION forming part of Letters Patent No. 685,107, dated October 22, 1901.

Application filed February 25, 1901. Serial No. 48,708. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. CLAY, a citizen of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented a new and useful Concave Support and Adjusting Means, of which the following is a specification.

My invention relates to an improved means for supporting and adjusting the forward end of a separator-concave.

The object of my invention is to provide a support and adjusting means for a separator-concave in which the weight and thrust of the concave will not be sustained by the adjusting-shaft, but will be transmitted directly to the supporting-framework.

The accompanying drawings illustrate my invention.

Figure 1 is a transverse section of a concave provided with my improvement. Fig. 2 is a vertical section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 2.

In the drawings, 4 4 indicate a pair of concave sides between which are mounted the usual concave-segments 4'. The rear end of each side 4 may be supported by any suitable means, an adjusting-shaft and cam 5 being shown in the present case.

The operation of the coöperating cylinder 6 creates a considerable thrust of the concave, and this thrust has heretofore been taken by a transverse shaft which carried the adjusting means for the forward end of the concave. In the present construction this thrust is transferred directly to the framework of the casing in the following manner: Secured to each of the beams 7 7 of the inclosing casing is a bracket 8, provided with a bearing-boss 9, which is adapted to receive the hub 10 of a cam 11. Cam 11 coöperates with a flange 12, formed upon the adjacent concave side 4, so as to sustain the weight of the forward end of said side. The interior of hub 10 is provided with a non-circular opening, preferably square in cross-section, through which is passed the adjusting-shaft 13, said shaft passing through both hubs 10 and being provided with a suitable operating-handle 14. Each side 4 is provided with a slot 15, into which the inner end of boss 9 projects, the said boss being of the same diameter as the width of the slot. By this construction the thrust of the concave is taken directly by bracket 8, due to the engagement of boss 9 within slot 15, and the weight of the forward end of the concave is also supported by said bracket because cam 11 is journaled in and is supported by the said bracket. There is therefore no weight or stress upon shaft 13, so that said shaft may be considerably smaller than has heretofore been the practice.

I claim as my invention—

1. The combination with a concave, of a stationary bracket, a sliding connection between said bracket and the concave, and means for shifting the concave.

2. The combination with a concave having a slot in one end thereof, of a stationary bracket provided with a boss lying within said slot, a shaft journaled within said boss, and a cam carried by said shaft and arranged to engage said concave.

3. The combination with a concave having a slot in one end thereof, of a stationary bracket provided with a boss lying within said slot, a cam journaled within said boss and arranged to engage the concave, and means for turning said cam.

4. The combination with a concave consisting, in part, of a pair of sides each provided with a slot at one end, of a pair of stationary brackets each provided with a boss extending into the slot of the adjacent concave side, a cam journaled in each of said bosses and arranged to engage the adjacent concave side, and an operating-shaft passing through both the cams.

5. The combination with a concave, of a stationary bracket provided with a boss, a shoulder carried by the concave and adapted to engage said boss, and a cam journaled in said boss and arranged to engage said concave.

HARRY C. CLAY.

Witnesses:
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