

(No Model.)

T. J. COLEMAN.
PEA AND BEAN THRESHER.

No. 566,743.

Patented Sept. 1, 1896.

Fig. 1.

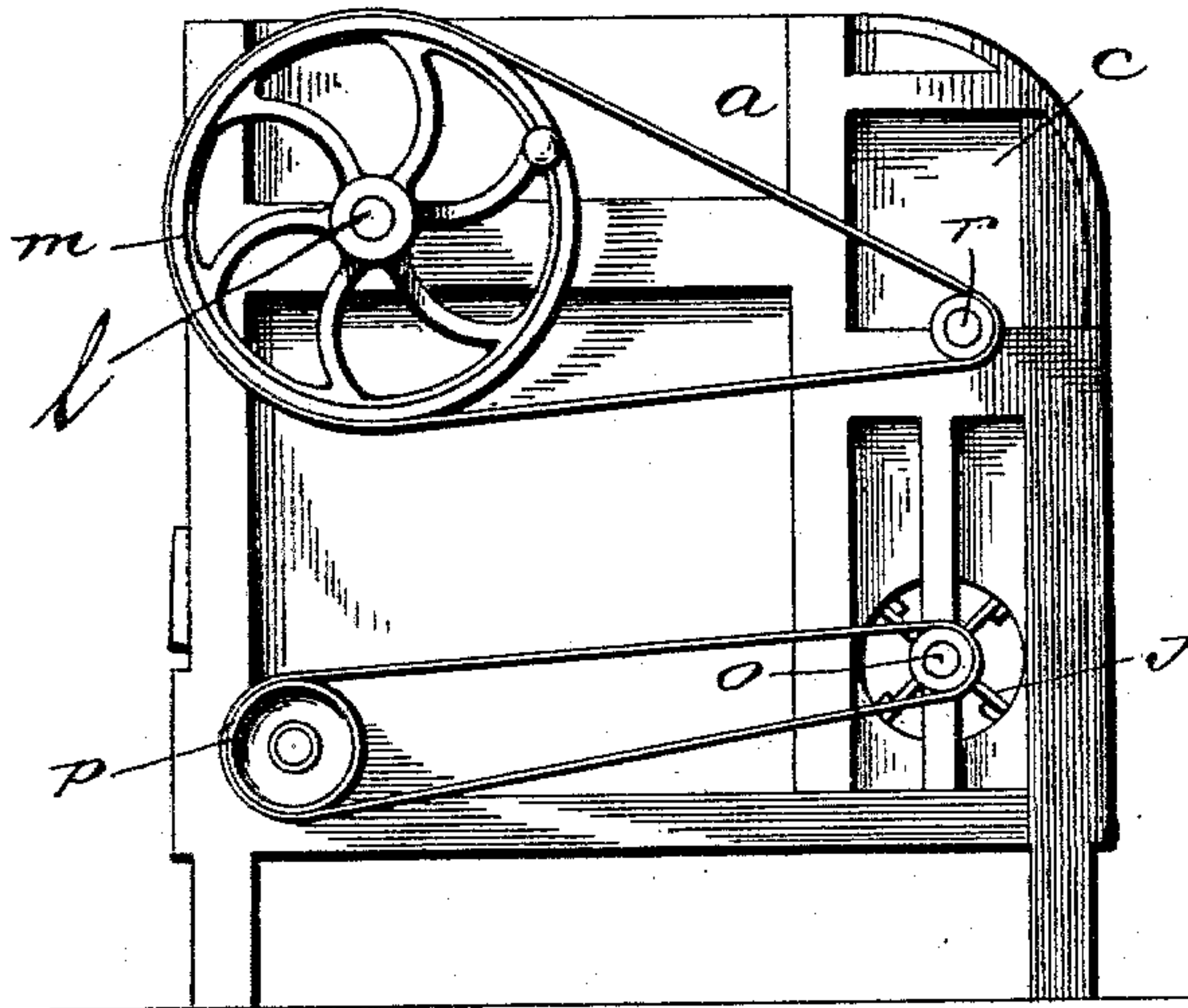


Fig. 4.

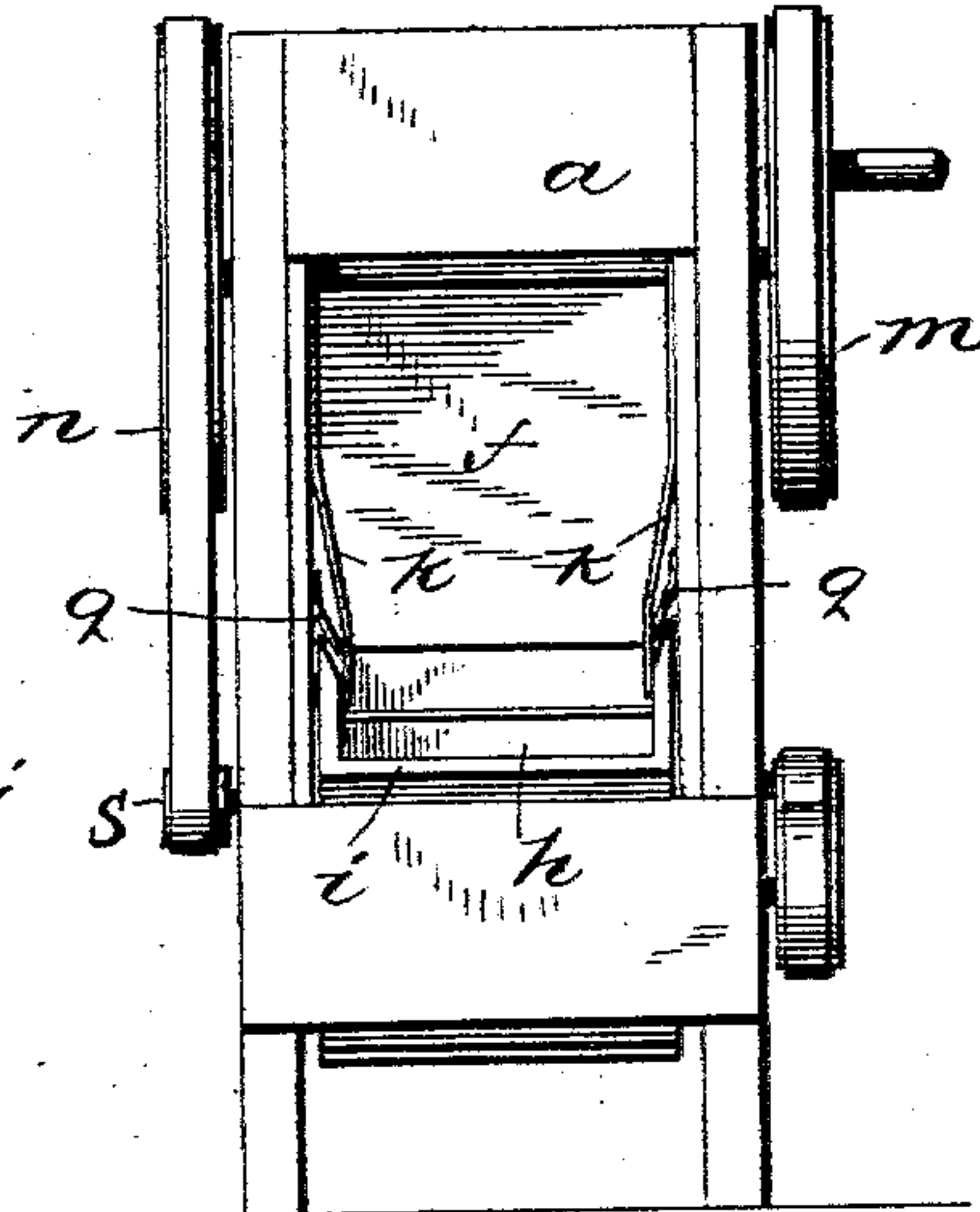


Fig. 2.

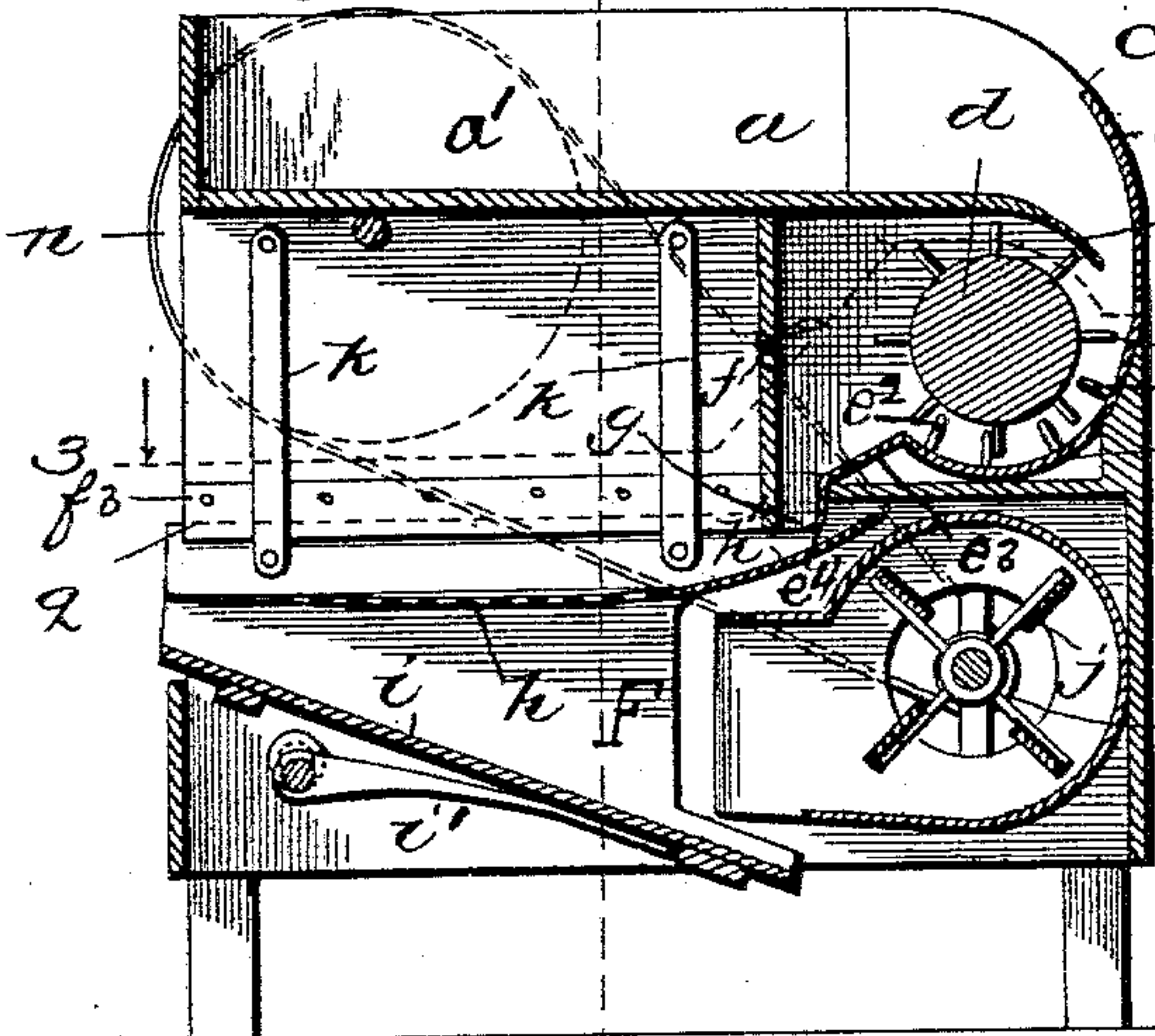


Fig. 5.

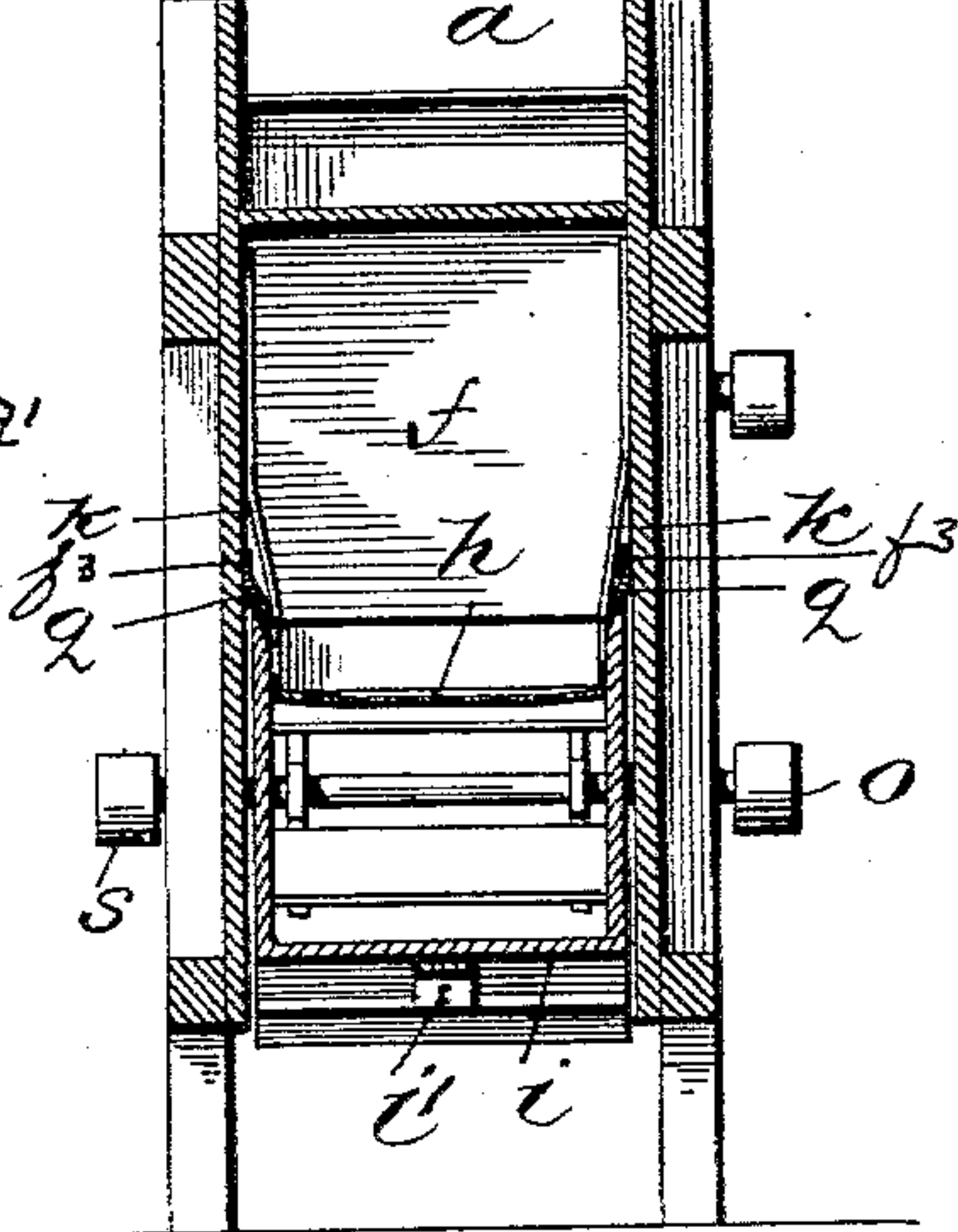


Fig. 3.

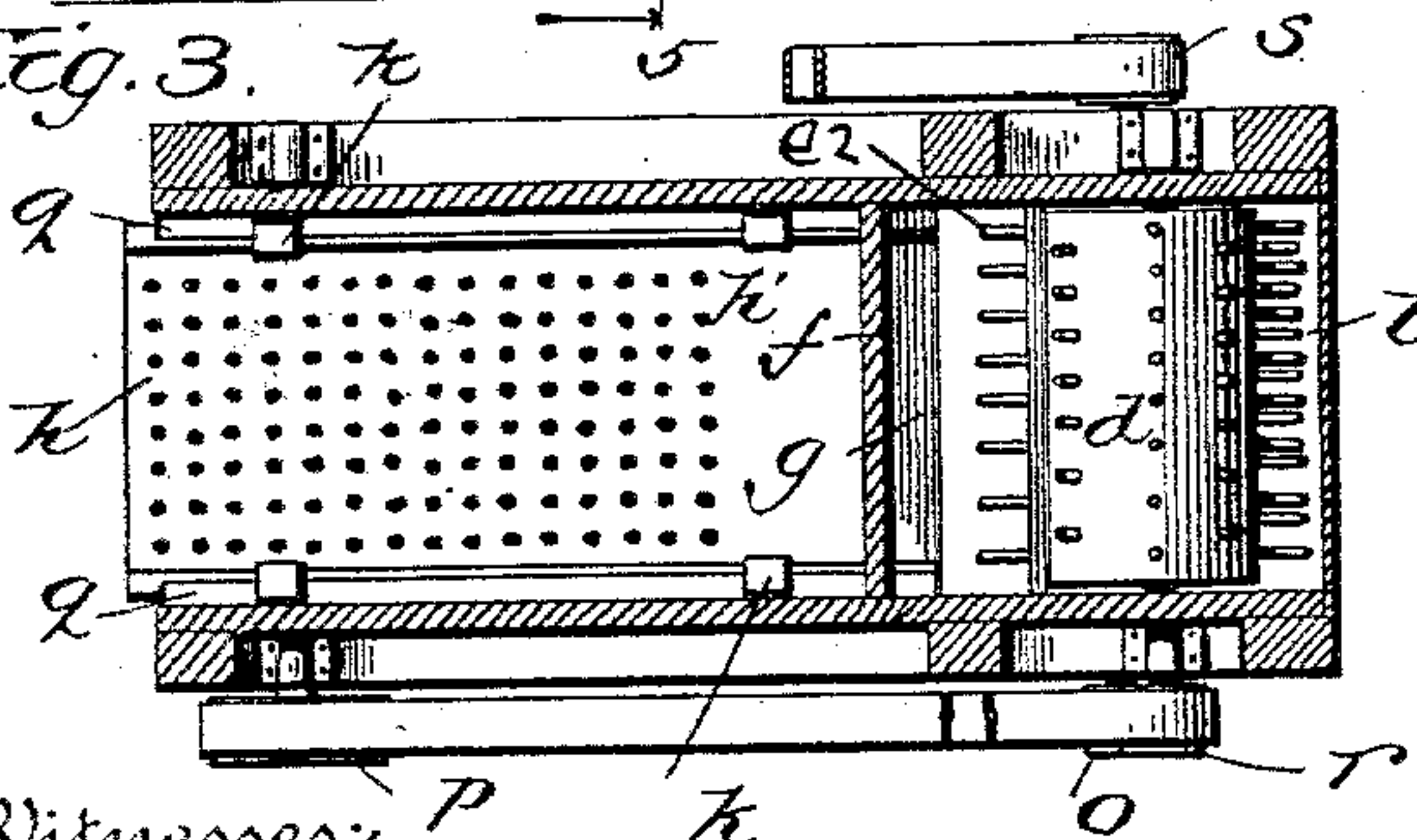
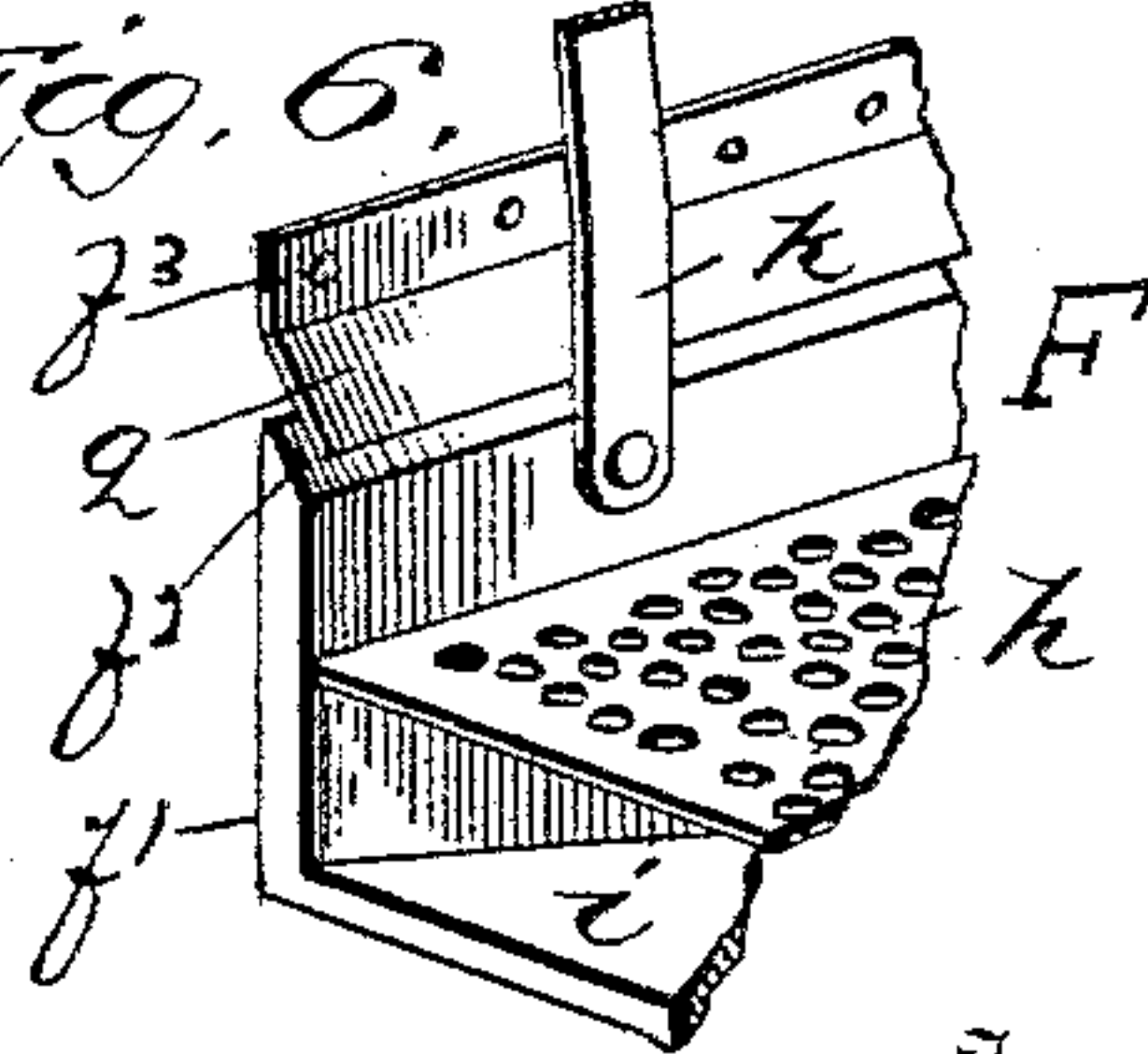


Fig. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

THOMAS JOSHUA COLEMAN, OF GREENWOOD, ARKANSAS.

PEA AND BEAN THRESHER.

SPECIFICATION forming part of Letters Patent No. 566,743, dated September 1, 1896.

Application filed January 11, 1896. Serial No. 575,097. (No model.)

To all whom it may concern:

Be it known that I, THOMAS JOSHUA COLEMAN, of Greenwood, county of Sebastian, and State of Arkansas, have invented a new and
5 useful Improvement in Machines for Threshing Peas, Beans, and the Like, of which the following is a specification.

The object of my invention is to produce a machine that will thresh peas, beans, and the
10 like quickly and successfully from the hulls and immediately separate the said peas from the hulls and dust without injury to the bean.

My invention consists in the novel construction and arrangement of its several parts,
15 hereinafter described, and set out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of my invention. Fig. 2 is a longitudinal sectional elevation of my invention. Fig. 3 is a horizontal sectional view on the line 3 3, Fig. 2, showing the parts below said line. Figs. 4 and 5 are respectively rear and front elevations of my machine. Fig. 6
20 is a broken section of the sieve, of the chute, of the guard, and of the oscillating support.

My invention is described as follows:

The hopper *a* is mounted on the top of the machine, is the full width of the same, and extends from the rear end of the machine forward to the chute leading down into the cylinder *d*. The bottom *a'* of the said hopper has its front end curved downwardly at *b* to correspond with the periphery of the cylinder *d* and its arms *d'*.
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On the front end of the thresher and just in front of the hopper is a removable section *c*, which covers the entire upper half and front of the cylinder *d*. (See Fig. 1.) This removable section is provided with a curved
40 wall *c'* to assist in guiding the peas down between the arms of the cylinder and the arms of the concave base *e*. Said cylinder *d* is provided with several rows of arms *d'*. In the front end of the machine, and immediately
45 beneath said cylinder *d*, is a concave base *e*, its concavity being such as to conform to the periphery of the cylinder. Secured to and extending upward from the inner face of said concave base are three rows of arms *e'*. These
50 arms are so situated that the arms *d'* of the cylinder pass between them, so that the hulls

are entirely broken up. Near the inner edge of the concave part of said base is a row of arms *e''*, more thickly set in said base than arms *e'*, the object of which is to prevent the
55 hulls from getting through into the sieve unbroken.

Extending from the inner edge of the concave base is an inclined plane *e''*, and at its end it turns down, forming a vertical plane *e'''*.
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Immediately in front of the cylinder *d*, base *e*, inclined plane *e''*, and vertical plane *e'''* is a vertical wall *f*, extending from one side of the machine to the other and from the lower face of the bottom *a'* to a point on a horizontal line with the end of the vertical plane *e'''*,
65 but leaving sufficient room between said plane *e'''* and the wall *f* to form a chute *g* for the peas and hulls to pass through down to and on the face of the front end of the sieve. To
70 the front and beneath said chute *g* is swung, by means of pivoted arms *k*, a trough *F*, having side walls *f'*, with beveled edges *f''*, the bevels inclining outwardly. Fitting over these beveled edges *f''* are protectors *q*, which
75 extend over to said beveled edges *f''* and prevent any hulls or peas from passing down between the inner faces of the walls of the machine and the outer faces of the walls of said
80 trough. Said protectors are secured to the walls of said machine by means of flanges *f'''*, nails, screws, or tacks. The bottom *i* of the said trough *F* slants forward and downward. In said trough and above the bottom is fixed
85 a sieve *h*, the forward end of which turns up and passes under the lower end of the chute *g*.

After the hulls of the peas or beans have been crushed and broken by the arms of the cylinder *d* and of concave base *e* the said
90 hulls and peas are thrown against the vertical wall *f*, which practically removes all dust and other adhering particles from the beans, and the whole mass falls thence through the chute *g* onto the turned-up end of the sieve *h*. This sieve *h* is made of tin, sheet-iron, or the
95 like, and is perforated. It is not constructed of woven wire, as in that case the hulls would not readily slide over the surface. The perforations are punched from the top downwardly, so as to leave no obstruction on the
100 upper surface of the sieve. A part (the turned-up part *h'* of the sieve *h*, upon which

the peas first fall when ejected through the chute *g*) is not perforated, but inclines backward and downward to the rear. The object of this incline is to cause the peas to be in a sliding position when they reach the perforated surface of the sieve. The peas will then pass through the perforations in the sieve, fall upon the inclined bottom *i*, and slide thence forward and fall under the machine. The hulls will, upon reaching the perforated surface of the sieve, encounter a blast of air from a fan *j*, which blast passes from the fan upward and passes through the perforations in the sieve and partially raises the hulls from the perforated surface, thus freeing the peas, that they may fall through the perforations and at the same time force the hulls, dust, &c., out through the rear end of the machine.

The trough *F* is reciprocated by an eccentric attachment *i'* underneath the sieve-frame, which consists of a connecting-rod passing from the eccentric proper to the lower end of the bottom *i*, to which it is secured.

The motor power for the operation of the machine is furnished from a shaft *l*, upon each end of which are wheels *m* and *n*.

From the wheel *m* runs a belt to a pulley *r*, which operates the cylinder *d*. From the wheel *n* runs a belt to a pulley *s*, which operates the fan. Upon the opposite side of the fan-shaft is a pulley *o*, from which runs

a belt to pulley *p*, which operates the eccentric attachment *i'*.

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

The combination of the frame with the fan-wheel *j*, journaled in the lower part and front end of the frame; hopper *a*, provided with the curved bottom *a'*, at the point, *b*; removable section *c*, having the curved wall *c'*; cylinder *d*, journaled in the front end of said frame; arms *d'*, secured in said cylinder; concave base *e*, provided with three rows of arms *e'*, and more thickly studded row of arms *e''*, incline *e''*, and vertical part *e'''*; wall *f*, extending from the bottom *a'*, downward to a line parallel to the lower end of part *e'''*, leaving between said wall and said part a chute *g*; trough *F*, having side walls *f'*, and incline *f''*; sieve *h*, having the upturned and non-perforated part *h'*; inclined bottom *i*; protectors *q*, having flanges *f'''*; swinging arms *k*, secured to the walls of the frame and the walls of the trough *F*; and eccentric attachment *i'*, substantially as shown and described and for the purposes set forth.

In testimony whereof I have hereunto set my hand this 4th day of January, 1896.

THOMAS JOSHUA COLEMAN.

Witnesses:

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W. J. SEAMANS.