

(No Model.)

T. W. HELM.
MACHINE FOR TREATING HEAVILY SWEETENED TOBACCO FILLERS.
No. 525,898. Patented Sept. 11, 1894.

FIG. 1.

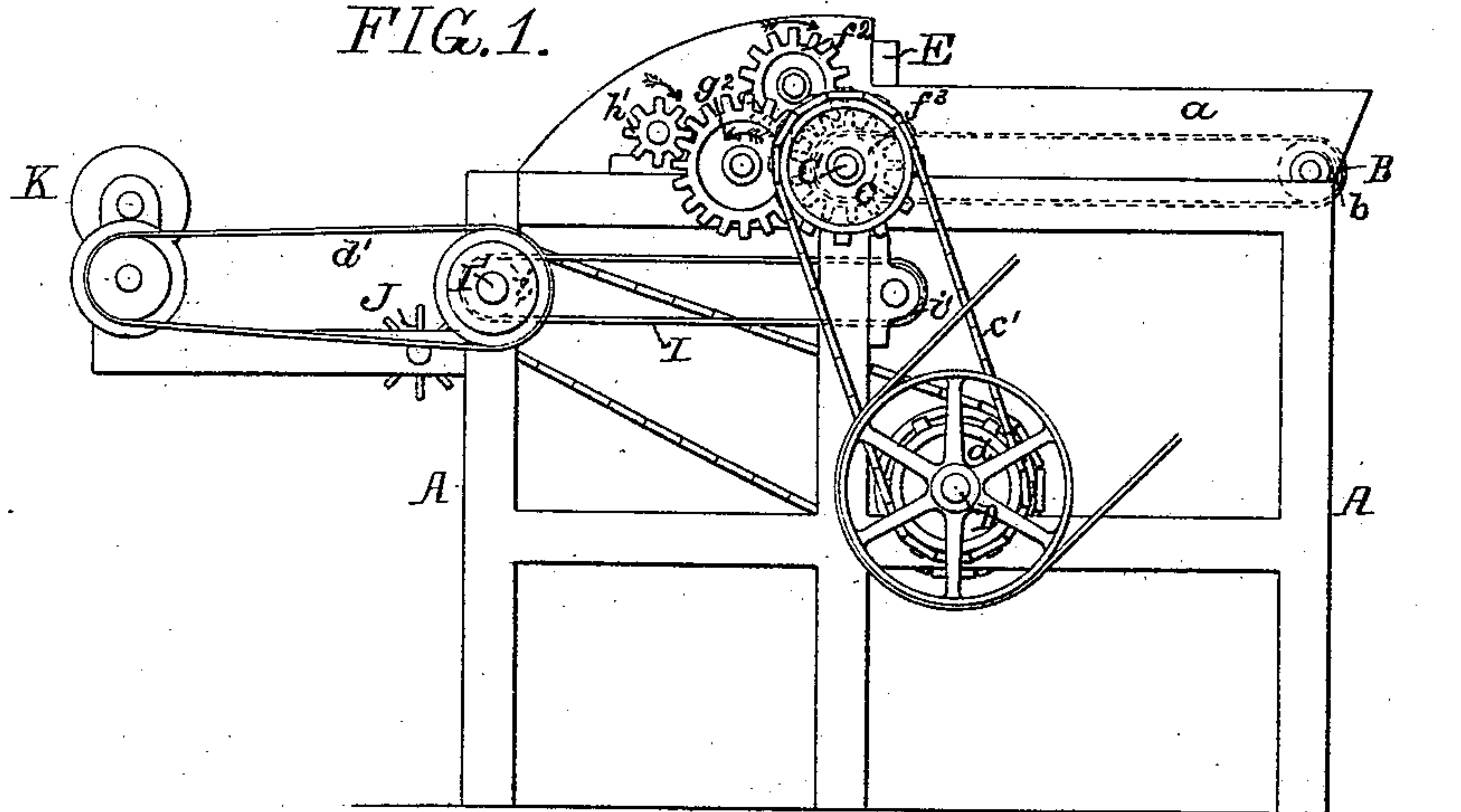


FIG. 2.

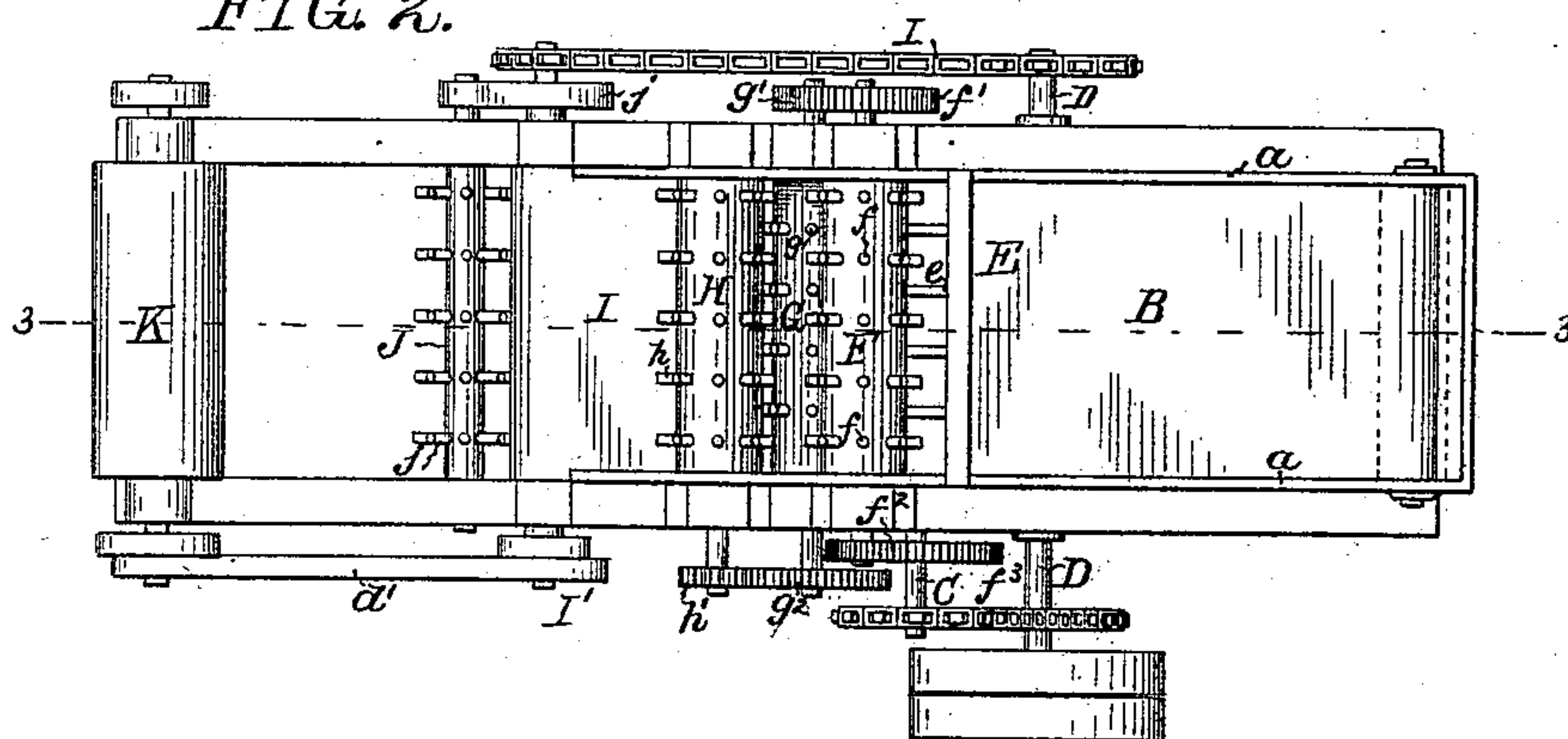
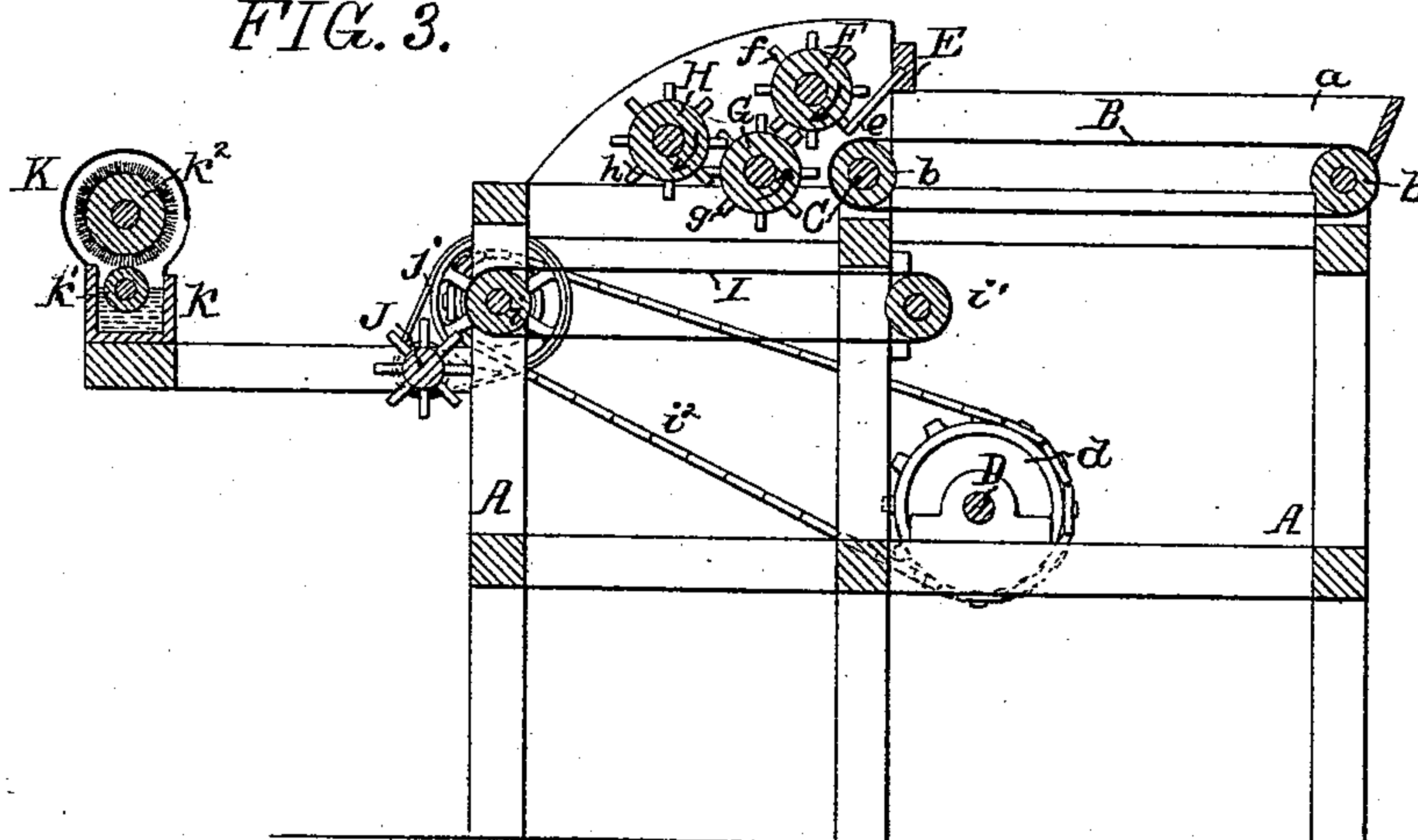


FIG. 3.



Witnesses:
P. D. Goodwin
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UNITED STATES PATENT OFFICE.

THOMAS W. HELM, OF DANVILLE, VIRGINIA, ASSIGNOR TO THE CARTER MACHINE COMPANY, OF SAME PLACE.

MACHINE FOR TREATING HEAVILY-SWEETENED TOBACCO-FILLERS.

SPECIFICATION forming part of Letters Patent No. 525,898, dated September 11, 1894.

Application filed October 19, 1893. Serial No. 488,624. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. HELM, a citizen of the United States, and a resident of Danville, Virginia, have invented certain Improvements in Machines for Treating Heavily-Sweetened Tobacco-Fillers, of which the following is a specification.

The object of my invention is to loosen and separate leaves of heavily sweetened tobacco fillers.

A further object of the invention is to spray the leaves as they pass from the machine with water or with liquid flavoring. These objects I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1, is a side view of my improved machine. Fig. 2, is a plan view; and Fig. 3, is a longitudinal sectional view on the line 3—3, Fig. 2.

Heretofore heavily sweetened tobacco fillers have been usually separated by hand and after being carefully separated have been sprayed. This work is very slow.

In the machine which I will now proceed to describe the fillers can be quickly separated and at the same time sprayed.

A is the frame of the machine.

B is an endless belt passing over rolls *b b* forming a receiving table for the tobacco fillers. At the front and at each side of the belt are walls *a* so that the leaves will not fall from the belt. The rolls *b* are mounted on a shaft C and on this shaft is a sprocket wheel *c* over which passes a chain *c'*. This chain passes around a sprocket wheel *d* on a driving shaft D mounted in suitable bearings in the frame of the machine. The endless belt B passes under a cross bar E. Depending from this bar are a series of fingers *e* which retain the tobacco until it is pulled out from under the fingers by the feed wheel.

F is the feed cylinder or wheel having pins *f* arranged at intervals as shown in Fig. 2, which mesh with the fingers *e* of the bar E and as this feed cylinder is turned in the direction of the arrow it will draw the tobacco from under the fingers and beyond the control of the belt.

G is the first picker cylinder having pins *g* which mesh with the pins *f* of the feed cylin-

der F and as this picker cylinder revolves in the direction of the arrow it will carry the tobacco toward the second picker cylinder H, mounted as shown in Fig. 3. The first picker cylinder is geared to the feed cylinder F through a pinion *g'* and gear wheel *f'* so that the first picker cylinder will travel at a greater speed than the feed cylinder thereby picking apart and separating the leaves of tobacco passing through the machine. The feed cylinder is geared to the shaft C by gears *f²*, *f³*. The second picker cylinder H is situated back of the first picker cylinder and has pins *h* which mesh with the pins *g* on the first picker cylinder G and on the shaft of this picker cylinder H is a small pinion *h'* which gears with a wheel *g²* on the shaft of the cylinder G so that the second picker travels at a greater speed than the first picker. Thus the leaves are separated, the second picker carrying some of them in advance of those under the control of the first picker.

Directly under the cylinder is an endless belt I passing over rolls *i, i'*, the roll *i* being driven by a chain *i²* from the driving shaft D. Beyond the end of the belt is a reel J having a series of fingers. This reel is slowly revolved and is driven from the shaft of the roll *i* by a belt *j*, Fig. 2. Thus as the tobacco is carried from under the picker cylinders by the belt it is transferred to the reel from which it discharges into any suitable receptacle.

Situated in front of the reel is a spraying device K consisting of a trough *k* for the liquid to be sprayed, a roll *k'* adapted to carry the liquid from the trough and a spraying brush *k²* to spray the liquid from the roll onto the tobacco as it passes over the reel J. The spraying device is driven from the shaft I' by a belt *d'*, as clearly shown in Fig. 1.

It will be seen by the above description that tobacco fillers heavily sweetened placed upon the receiving belt B will be carried to the separating cylinders by which the leaves will be loosened and separated, the leaves dropping on the delivery belt I and fed over the reel J at which point they are sprayed by the spraying device K.

I claim as my invention—

1. The combination of the feed belt, the retarder, the feed cylinder, the first picking cyl-

inder and the second picking cylinder geared substantially as described, an endless belt for receiving the loosened leaves of tobacco, a reel upon which the leaves are discharged, 5 and a spraying device for spraying the leaves as they are carried over the reel, substantially as described.

2. The combination with the feeding mechanism, and the picker mechanism for separating and loosening the leaves of tobacco, of 10 an endless belt for receiving the said leaves, a reel journaled near one end of said belt and adapted to receive the loosened leaves, and a spraying device located in the line of travel 15 of said belt for spraying the leaves as they pass over the reel, substantially as described.

3. The combination of the feeding mechanism, the first picker cylinder and the second picker cylinder so geared as to separate and loosen up the leaves of tobacco, an endless 20 belt for receiving the said leaves, a reel upon which the leaves are discharged, and a spraying device for spraying the leaves as they are carried over the reel, substantially as described. 25

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS W. HELM.

Witnesses:

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E. W. DIXON, Jr.