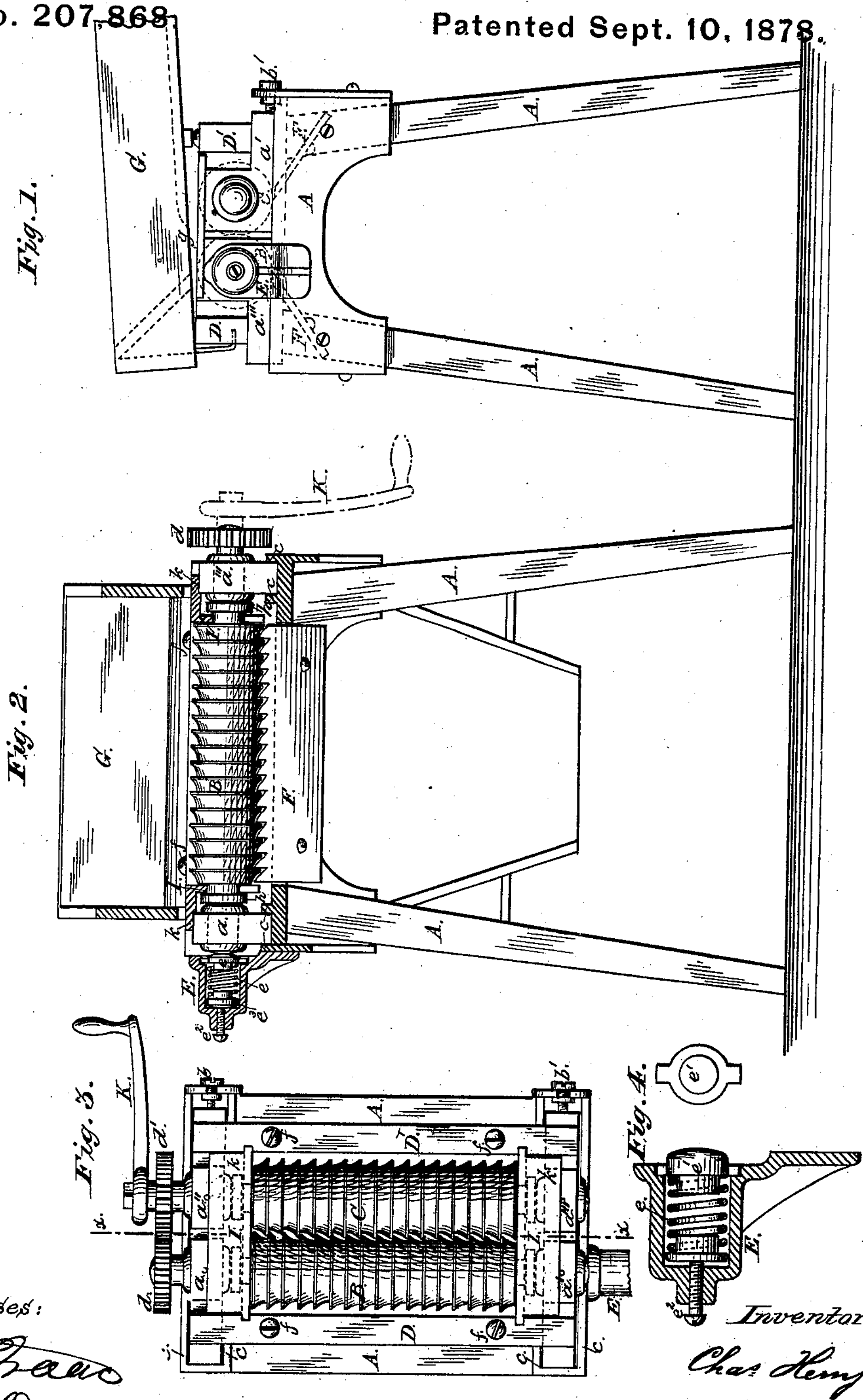
2 Sheets—Sheet 1.

C. HEMJE.
Tobacco-Cutting Machine.

No. 207,868. Patented Sept. 10, 1878.



Witnesses:

[signature]

[signature]

Inventor:

Chas. Hemje

2 Sheets—Sheet 2.

C. HEMJE.

Tobacco-Cutting Machine.

No. 207,868. Patented Sept. 10, 1878.

Fig. 5.

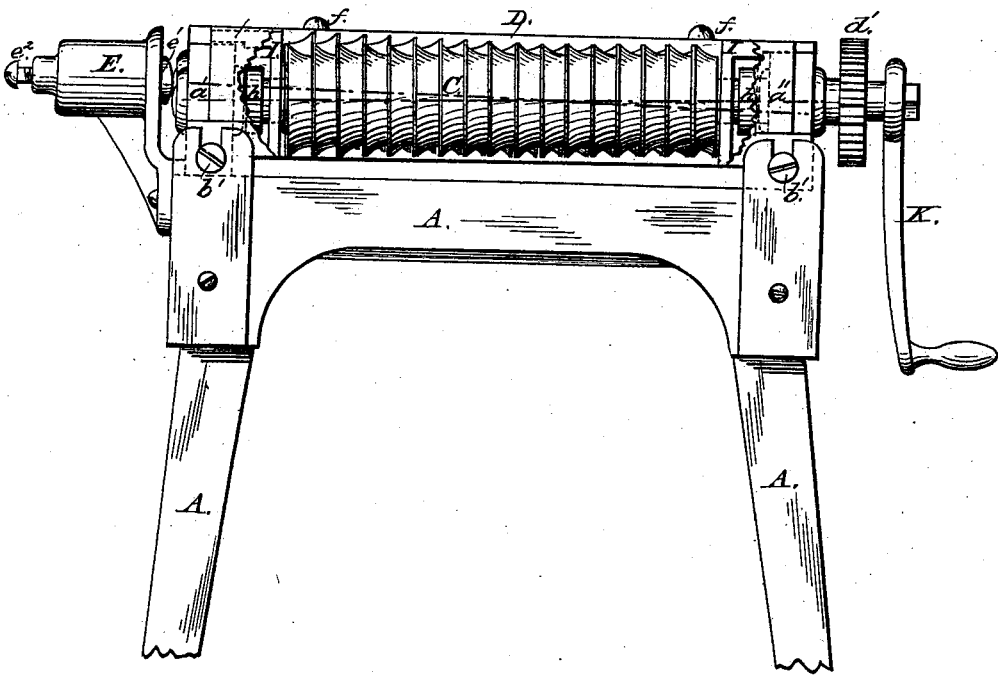


Fig. 6.

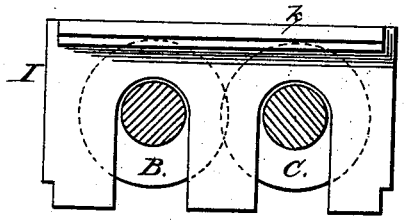
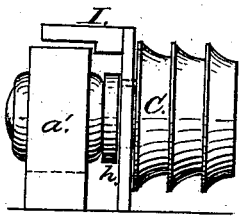


Fig. 7.



Witnesses:

H. Hundertmark.

Inventor:

Chas. Hemje

UNITED STATES PATENT OFFICE.

CHARLES HEMJE, OF NEW YORK, N. Y.

IMPROVEMENT IN TOBACCO-CUTTING MACHINES.

Specification forming part of Letters Patent No. **207,868**, dated September 10, 1878; application filed March 15, 1878.

To all whom it may concern:

Be it known that I, CHARLES HEMJE, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Tobacco-Cutting Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 letters of reference marked thereon, which form a part of this specification.

My invention relates to machines for cutting up leaf-tobacco into scrap or small pieces, such as is now frequently used for making the fillers of cigars; and the object is to improve the construction of such machines.

The invention consists in the construction and arrangement of certain parts of a tobacco-cutting machine, as will be hereinafter described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 represents an end elevation of my machine. Fig. 2 is a vertical cross-section on line *x x* of Fig. 3. Fig. 3 is a plan view of my machine. Fig. 4 is an enlarged section of the spring-pressure case. Fig. 5 is an enlarged side elevation, showing the inclination of the rollers. Figs. 6 and 7 are detail views, showing the partition in position on an enlarged scale.

In the drawings, A is a suitable frame, in which are arranged the journal-boxes *a a' a'' a'''*, the latter two being adjustable by set-screws *b b'* and moving in guides *c c*. In these boxes the journals of the rollers B C revolve, and these are geared together by wheels *d d'*. The rollers are grooved toward their opposite ends, and the cutting-edges are formed by the grooves, and they are placed so that the straight sides of cutting-edges of the one roller act against the straight sides of the cutting-edges of the opposite roller. The cutting-edges of the rollers should lap each other about one-sixteenth of an inch, which can be regulated by the set-screws *b b'* of the journal-boxes *a'*. The journal-boxes are arranged so that two of them have their respective shaft-holes bored a little higher than the other two, those diagonally opposite each other being alike. The holes for the shafts of the rollers B C in the journal-boxes *a a'''* are bored slightly higher than those in the journal-boxes *a' a''*, which are level with each other, and thus the rollers will cut on the principle of the cutting-edges of a pair of shears or scissors. This arrangement is necessary to make the machine cut well, as the rollers are thereby brought at a small angle to each other when viewed horizontally, and thus give a draw cut. Parallel with each roller is a bar, D D', resting on the journal-boxes *a a' a'' a'''*, and are secured by bolts *f f* passing through them and into the frame, and thus hold the journal-boxes and rollers firmly in their position.

A small case, E, is attached to the end of the frame, with an opening exactly opposite the end of the roller B. In this case is placed a spring, *e*, which acts against a disk, e^1, and this against the end of the roller B, thereby creating the necessary pressure of the one roller against the other. A set-screw, e^2, is arranged in the end of the case, and by a disk, e^3, against which it presses, regulates the tension of the spring.

Inasmuch as nails are often found in the tobacco, and would injure the cutting-edges of the rollers by getting between them, the spring is of great value, as it allows the rollers to move a little endwise in case a nail gets between them, and for this reason the rollers would not be so easily injured as if set stationary.

Scrapers or combs F are secured in any suitable manner and position, but preferably as shown, so as to act on the bottom side of the rollers and serve to scrape them, and also prevent them from clogging in the grooves. A feed-box, G, is arranged on top of the machine, and is arranged so that it can be easily removed. The bottom of the box partly covers the rollers, so as to leave merely an opening, *g*, large enough for the tobacco to enter between the rollers.

The rollers are provided at each end with a collar, *h*, between which and the rollers a vertical partition, I, fits, and it has a horizontal flange, *k*, which passes over on top of the journal-boxes, and by this partition all dust and sand contained in the tobacco are excluded,

and the journal boxes and bearings kept clean. The partition can be easily removed when desired. A suitable crank, K, is secured on the end of roller C, by which the machine is operated. If two rollers are used, the tobacco has to be run through the machine twice. If desired, however, three rollers can be arranged and geared, so that after the tobacco is cut into strips by the first and second rollers it drops on the third roller, and this latter being geared to the second roller the strips are cut into scrap by the second and third rollers.

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

1. In a tobacco-cutting machine, two or more rollers grooved so as to form cutting-edges, and having the journal-boxes arranged at different heights of bearings, in combination with scrapers F, constructed substantially as shown, and for the purpose described.

2. In a tobacco-cutting machine, the combination of spring-case E, spring *e*, disks e^1 e^3, and set-screw e^2 with the grooved rollers B C and the scrapers F, arranged substantially as and for the purpose herein set forth.

3. The combination of the grooved rollers, geared together, with the scrapers F, spring-case E, and the journal-boxes, arranged at different heights of bearings, and their respective set-screws, substantially as shown and described.

4. In a tobacco-cutting machine, the combination of the grooved rollers B C, with collars *h* at each end, and the partition I, with flange *k*, for keeping the dust and sand from the journal-boxes, arranged substantially as and for the purpose specified.

5. A tobacco-cutting machine consisting of the frame A, rollers B C, scrapers F, spring-case E, journal-boxes *a a'*, and the feed-box G, all constructed and arranged as shown and herein described.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

CHAS. HEMJE.

Witnesses:
F. B. QUERC,
H. HUNDERTMARK.