

N. H. BORGFELDT.  
MACHINE FOR GRANULATING TOBACCO.

No. 62,811,

Patented Mar. 12, 1867.

Fig: 2.

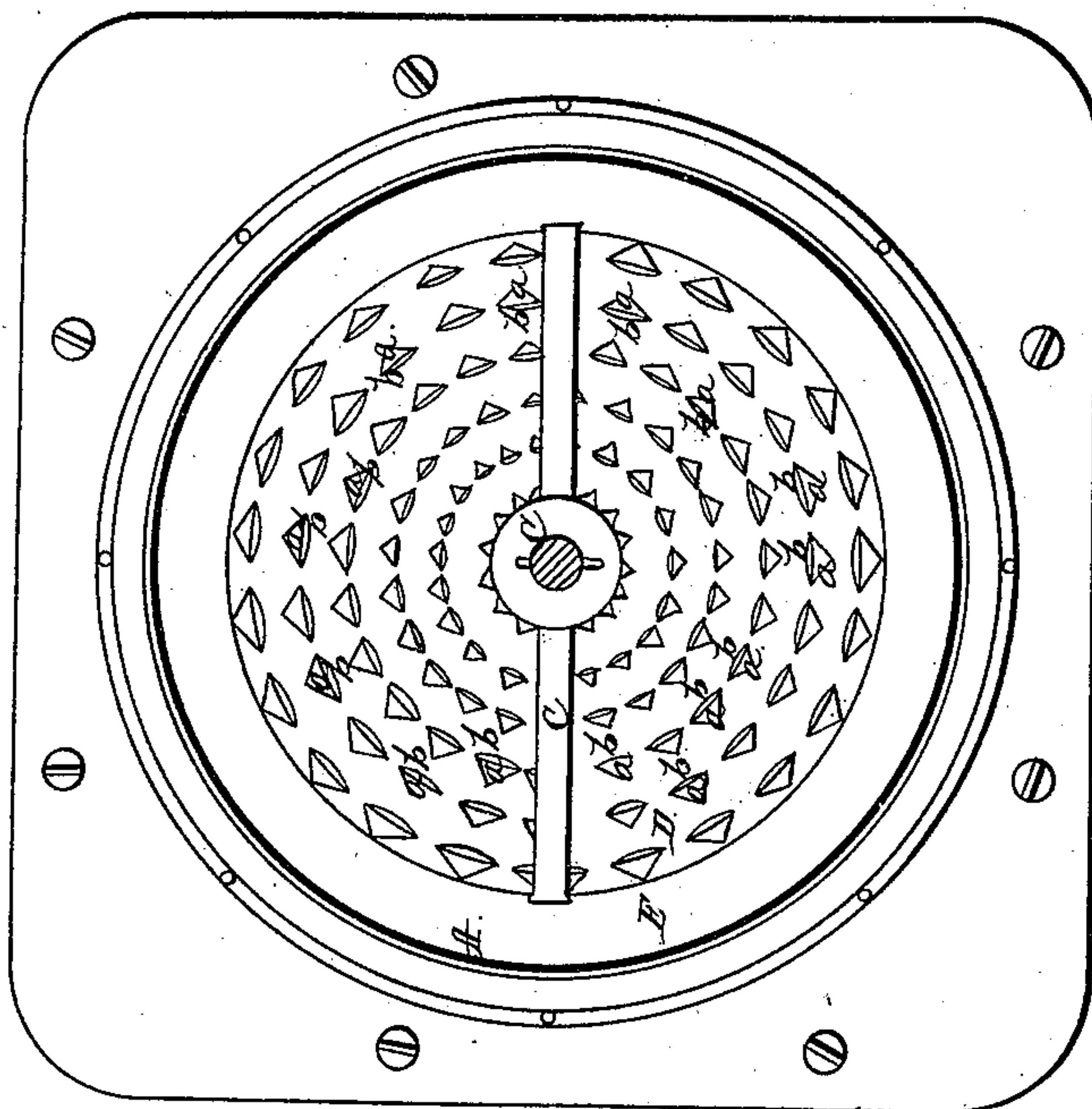
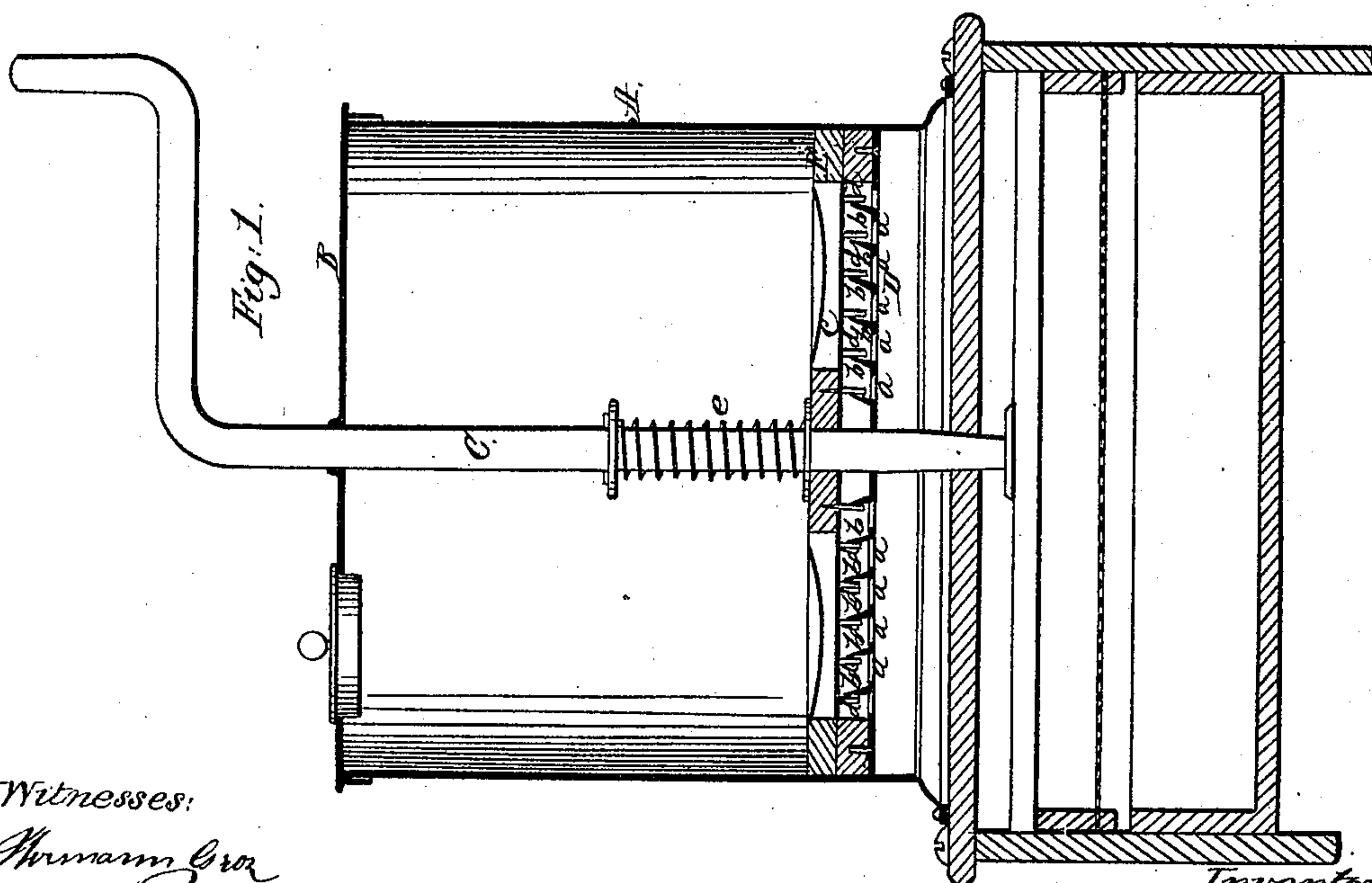


Fig: 1.



Witnesses:

Hermann Gron  
W. Hauff

Inventor:

Nicholas H Borgfeldt



# United States Patent Office.

NICHOLAS H. BORGFELDT, OF NEW YORK, N. Y.

Letters Patent No. 62,811, dated March 12, 1867.

## IMPROVEMENT IN MACHINE FOR GRANULATING TOBACCO.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, NICHOLAS H. BORGFELDT, of No. 64 Cedar street, in the city, county, and State of New York, have invented a new and improved Granulator for Tobacco, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a vertical central section of this invention.

Figure 2 is a horizontal section of the same.

Similar letters of reference in both views indicate corresponding parts.

This invention relates to an apparatus for the manufacture of what is known by the trade as killikkenik tobacco. For such tobacco, the scraps and waste from cigar manufactories, and other parts of the tobacco leaves or plants, are generally employed; and, in preparing said tobacco, the scraps and waste are first worked through a sieve of a certain fineness, whereby the tobacco is granulated; and afterwards this granulated tobacco is separated from the dust by means of a hair sieve. This operation is generally performed by hand. It is very tedious; and, furthermore, the dust created by it is exceedingly troublesome to the workmen and everybody in the room or building. All these disadvantages are obviated by my invention, which consists in a closed box, provided with a movable shaft, on which is mounted a sieve with sharp teeth, and with a yielding open head, furnished with projections, which extend between the teeth of the sieve in such a manner that, when the box is filled with tobacco scraps, or waste tobacco, and a revolving motion is imparted to the shaft and sieve, the tobacco is granulated by the action of the teeth of the sieve, and the projections on the yielding head; and, if nails, pieces of wood, or other impurities, (which are usually mixed with tobacco scraps,) get in between the projections of the head and the teeth of the sieve, the head yields, and injury to the teeth of the sieve, or to other parts of the machine, is prevented. At the same time, by the closed box, the escape of dust into the room is prevented, and the operation of granulating tobacco can be effected with little trouble and expense.

A represents a box, made of tin, or any other suitable material, in the form of a cylinder, or in any other suitable form or shape. This box is provided with a cover, B, which is made to fit tight, or which may be soldered to the body of the box, and provided with a feed opening, which, in that case, must be furnished with a tightly-fitting cover. Through the centre of the box A rises the shaft C, which is stepped in a suitable socket in the platform, which supports the box, and which has its bearing in a hole in the cover, as clearly shown in fig. 1 of the drawing. On this shaft is mounted the sieve D, which is constructed of a sheet-metal plate, perforated with a number of triangular holes *a*, and provided with teeth *b*, which may be formed by the pieces punched out in making the holes *a*, or which may be produced and secured to the sieve in any other suitable manner. Over the sieve D is placed the annular head E, which is provided with a cross-bar, *c*, from the lower surface of which extend the projections *d*. Said head is mounted loosely on the shaft C; and it is depressed towards the sieve D by a spring, *e*, wound round the shaft C. It is held in position in the box A simply by friction; and the projections *d* are so placed that they extend between the teeth of the sieve. Under the box A may be secured a fine sieve, attached to the bottom of a drawer, so that the dust will be separated from the granulated tobacco without trouble.

The operation is as follows: The tobacco scraps and waste tobacco are filled into the box A, the cover B is firmly closed, and the shaft C is turned. By the combined action of the projections *d* and teeth *b* the tobacco is granulated, and made to pass through the sieve D; and, if a nail, or a piece of wood, or any other rigid matter, gets in between the projections and teeth, the spring *e* yields, and the head E rises or turns round; or, if desired, said head, together with the sieve, can be removed, and injury to the teeth of the sieve, or other parts of the apparatus, is prevented. By these means the tobacco is granulated in an easy and speedy manner, and the dust is not permitted to escape in the room or building, so that the operation of granulating tobacco can be conducted without injuring the health of or annoying the workmen engaged in the operation, or other persons in the same room or building.

What I claim as new, and desire to secure by Letters Patent, is—

1. An apparatus for granulating tobacco, composed of a closed box A, movable toothed sieve D, and yielding head E, with projections *d*, constructed and operating substantially as and for the purpose described.
2. The arrangement of a sieve D, with teeth *b*, constructed and operating substantially as and for the purpose set forth.
3. Making the sieve D, shaft C, and head E removable from the box A, as and for the purpose described.

NICHOLAS H. BORGFELDT.

Witnesses:

W. HAUFF,

GEO. F. SOUTHERN.