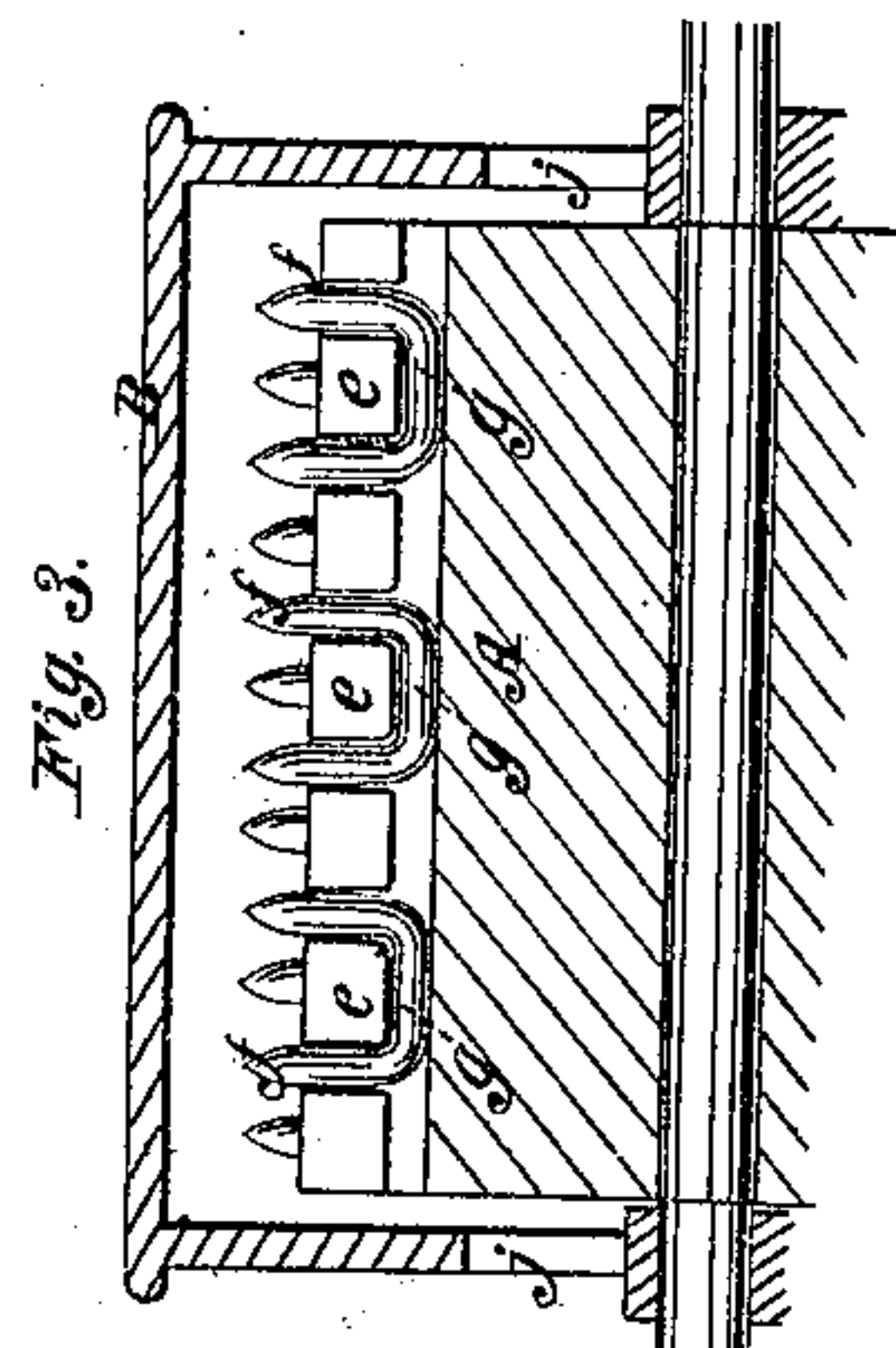
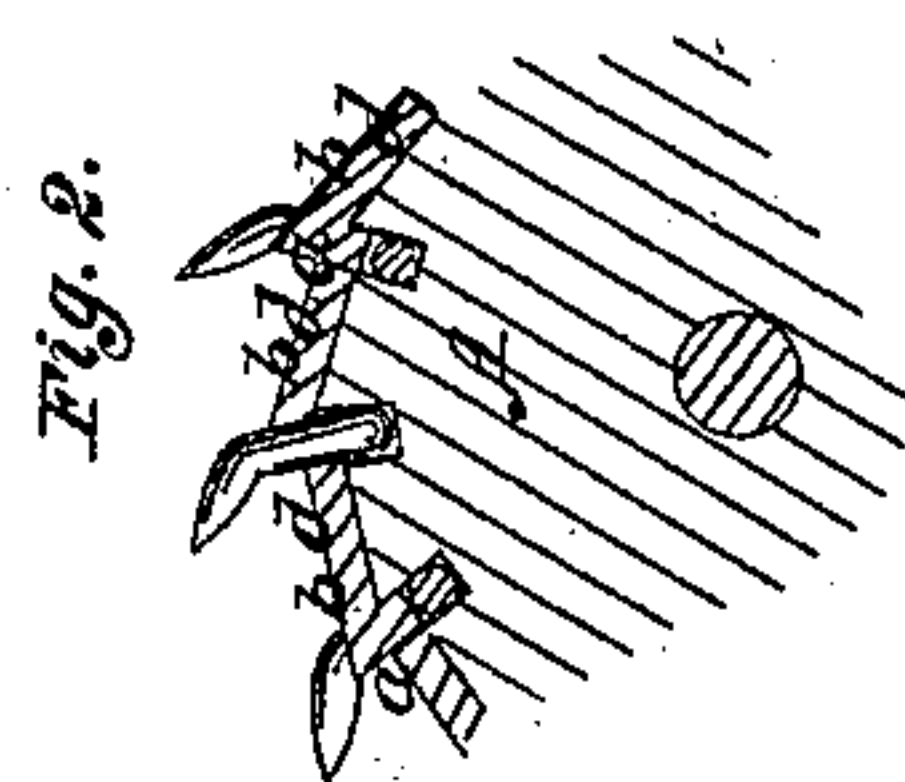
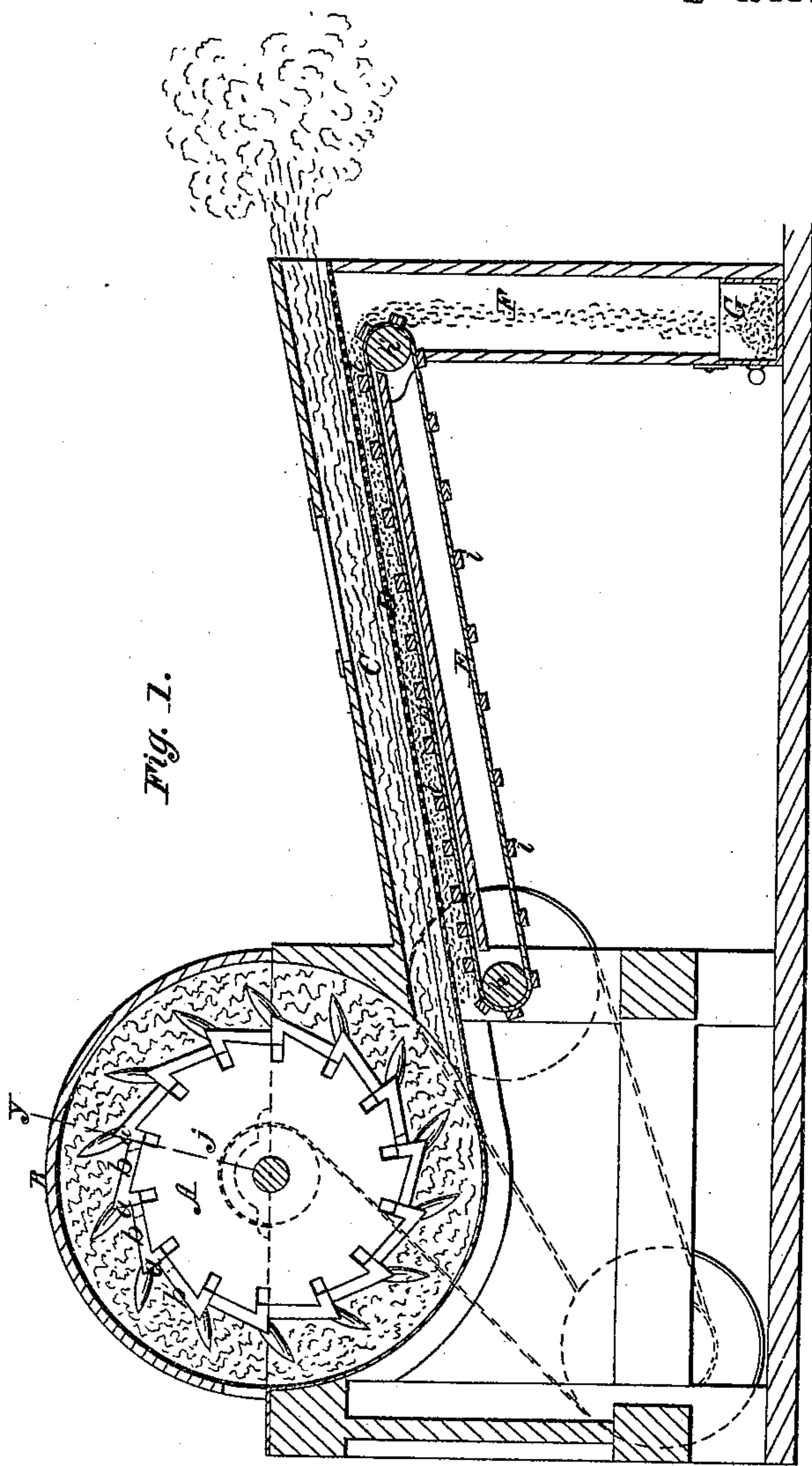


R. Kitson.
Picking Machine.

Nº 13,578.

Patented Sept. 18, 1855.



UNITED STATES PATENT OFFICE.

RICHD. KITSON, OF LOWELL, MASSACHUSETTS.

MACHINERY FOR PICKING FIBROUS MATERIALS.

Specification of Letters Patent No. 13,578, dated September 18, 1855.

To all whom it may concern:

Be it known that I, RICHARD KITSON, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Machinery for Picking and Combing Fibrous Materials; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a longitudinal elevation of a picker constructed according to my invention the frame and casing being shown in section and the picking cylinder entire. Fig. 2, is a section of a portion of the cylinder taken perpendicularly to its axis. Fig. 3, is a longitudinal section of a portion of the cylinder in the line *y*, of Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a novel method of securing the teeth in the cylinder of picking machines and other machines of similar character.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A, is the cylinder which is inclosed in the usual manner within a casing B; and C, is the spout through which the picked fibers are blown from the cylinder. The periphery of the cylinder is grooved longitudinally, one face *a*, of each grove being radial to the axis of the cylinder and the other face *b*, being inclined from the bottom of the face *a*, to the top of the face *a*, of the next groove. The parts of the cylinder between these grooves form a series of fans by which with proper openings *j*, *j*, left in the ends of the casing B, near the axis of the cylinder, the cylinder is made to constitute a fan blower to blow the picked fibers up the spout C.

When plates are applied to the cylinder to secure the teeth, it will be better to make the plates *d*, of the sectional form shown in Fig. 2 so that each plate covers or contains the face *a*, of the groove and the face *b*, of the next groove behind it, or each plate forms one fan. Instead of making the cylinder with grooves, ribs of wood or metal may be secured to its periphery at the backs of the several rows of teeth.

The plates *d*, which are represented in

Figs. 2 and 3 are constructed to secure what are known as card teeth, that is to say teeth which are made double like the teeth which are inserted in card fillet. They are of cast iron, made with notches to receive the teeth, and with locking pieces *e*, *e*, which enter the grooves which receive the teeth between the two prongs *f*, *f*, of each double tooth as shown particularly in Fig. 3 and rest on the bottom or crotch *g*, of the tooth.

The spout C, of the machine is furnished with a wire gauze screen D, like the spouts of many other machines of similar character, for the purpose of allowing the dirt to be separated from the fiber by falling through the said screen; but instead of requiring the dirt to be removed from the bottom of the spout by doors as in those machines in general use, I make the spout self cleaning by the employment of the endless apron E, which runs around two rollers *h*, *h'*, the former at the bottom of the spout, and the latter at the top and at the entrance to a descending trunk F. The endless apron is provided with slats *i*, *i*, to enable it to carry the dirt in the necessary upward direction. As it receives the dirt from the screen it carries it upward till in passing the roller *h'*, the dirt falls by reason of its gravity into the trunk F, at the bottom of which it is caught in a drawer G which may be removed and emptied as often as necessary.

Having thus described my invention I will proceed to state what I claim and desire to secure by Letters Patent.

I do not now claim broadly the application of a fan to the cylinder in any manner as one method of applying a fan is embraced in my patent of Oct. 31st, 1854.

Without claiming here the use of the notched plate for securing the teeth to the cylinder I claim—

Casting or forming the notched plate with locking pieces for the purpose of entering between the prongs *f*, *f*, of the teeth, into the grooves which are formed in the cylinder to receive the teeth, and fitting down to the bottom parts or crotches *g*, of the teeth and thus securing them in place.

RICHARD KITSON.

Witnesses:

V. A. ALGER,

SAML. J. TUTTLE.