

W. KEANE.
Tow-Cleaning Machine.

No. 227,261.

Patented May 4, 1880.

Fig. 1.

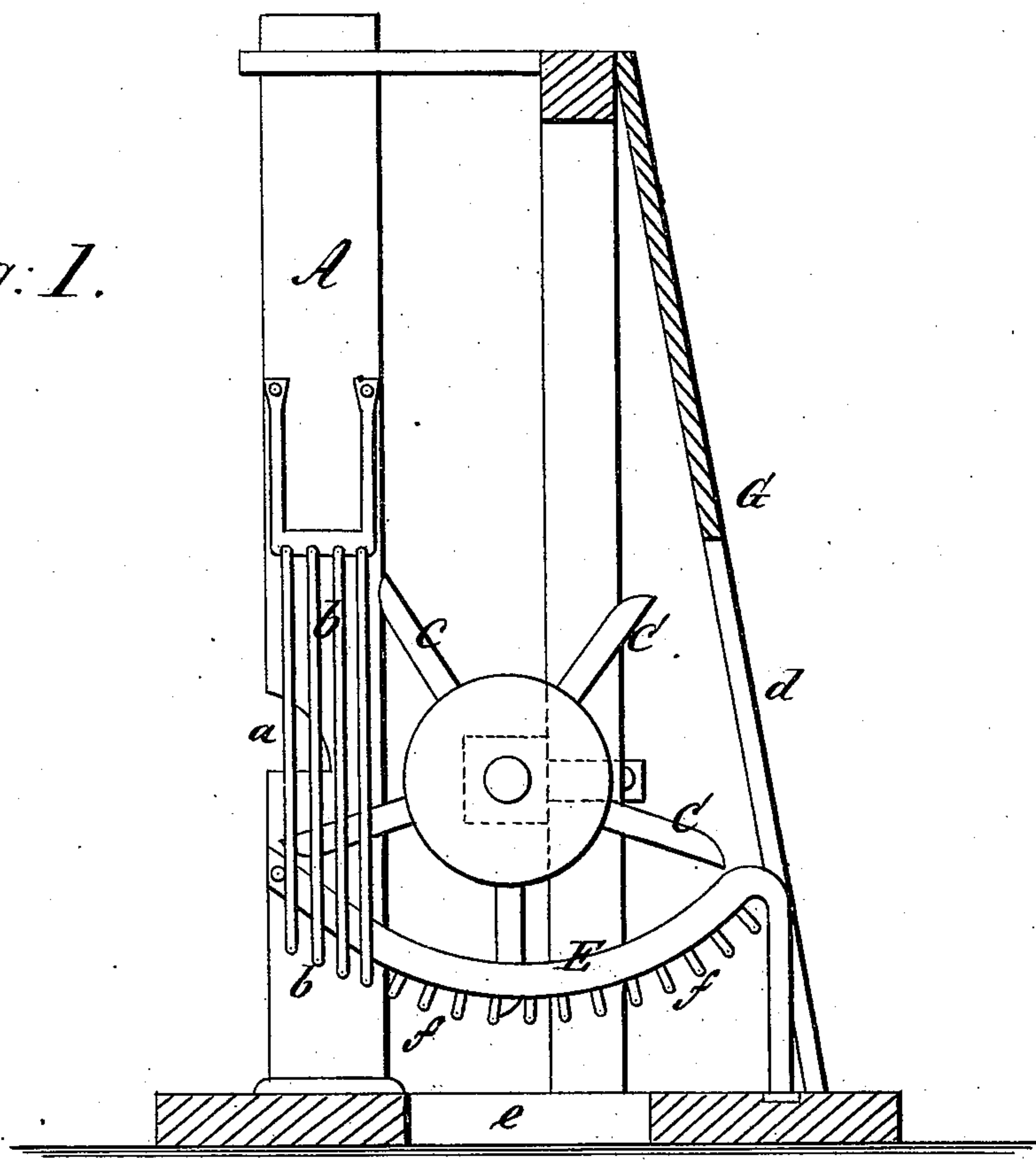
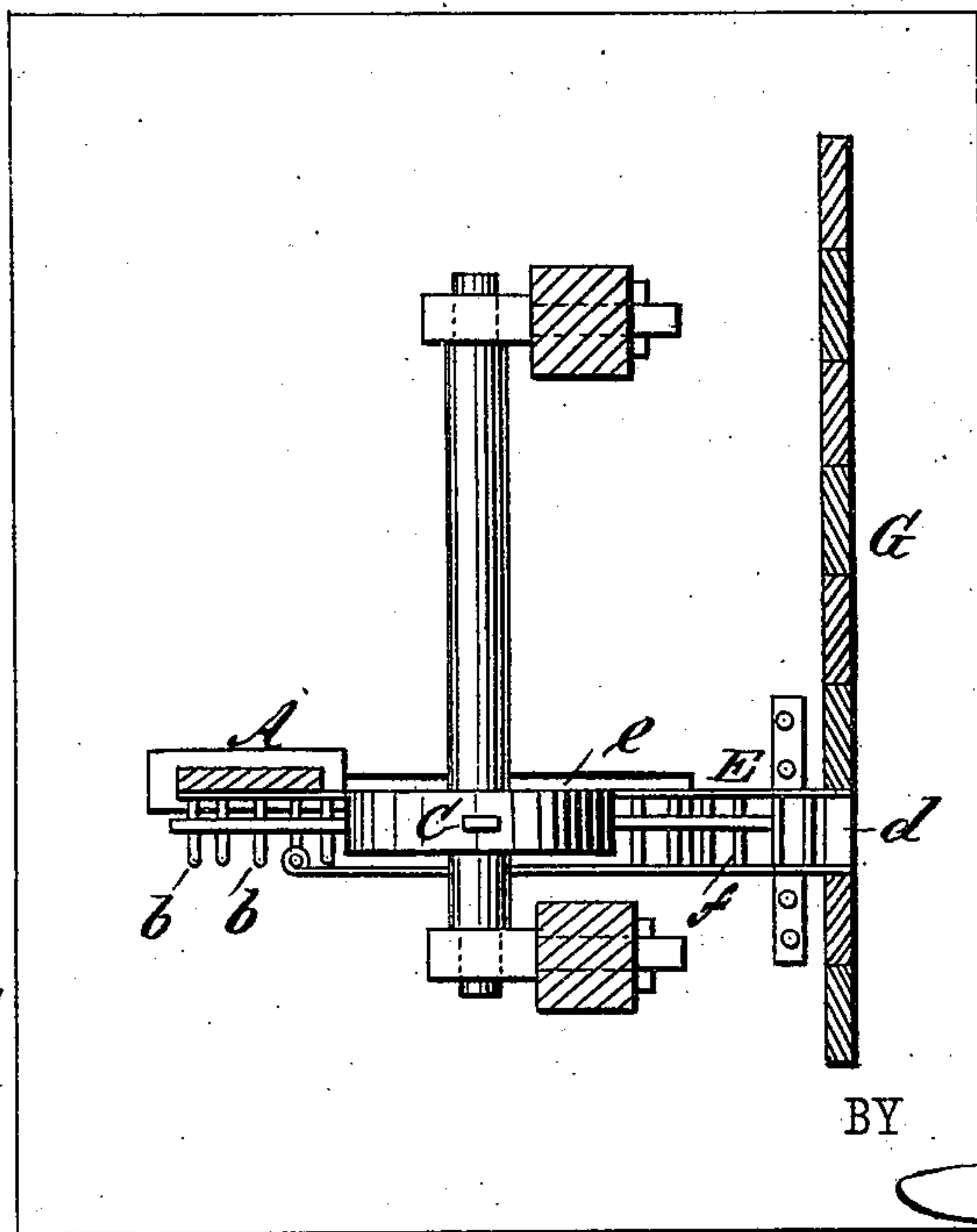


Fig. 2.



WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

WILLIAM KEANE, OF STRATFORD, ONTARIO, CANADA, ASSIGNOR TO
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TOW-CLEANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,261, dated May 4, 1880.

Application filed January 7, 1880

To all whom it may concern:

Be it known that I, WILLIAM KEANE, of Stratford, Perth county, Ontario, Canada, have invented a new Improvement in Tow-Cleaning Machines, of which the following is a specification.

My improvements relate to machines for cleaning flax-tow, and have for their object to thoroughly separate the shives from the tow and improve its quality and value.

Heretofore the tow has been cleaned by hand by tow pickers and beaters, which operations involve considerable expense and waste of tow, besides not being effective.

For a proper understanding of the nature and objects of my invention, it should be understood that the tow is the refuse from flax-scutching machines, which are made in various forms, but generally using revolving cutters, which remove the rough fibrous shives and other refuse while the flax is held by the scutcher. The tow is then partially cleaned, in the manner before mentioned, from the shives and refuse by separate operation.

In carrying out my invention I utilize the beaters of the scutching-machine for cleaning the tow after it is removed from the flax, and deliver the cleaned tow separately from the shives and other refuse, thus accomplishing the complete operation without extra machines.

These features I will describe more particularly with reference to the accompanying drawings, forming part of this specification.

In the drawings, Figure 1 is a sectional side elevation of my machine. Fig. 2 is a sectional plan view.

A is an upright scutching-board, as commonly used in flax-mills, having an opening, *a*, in which the flax is held by the scutcher while being dressed by the knives to remove the rough portion of the flax, which constitutes the tow.

C are the revolving knives, of usual character, and their operation for scutching purposes being well known, need not be further described here.

b b are upright rods attached to the scutching-board A and forming a screen, through which the shives and other refuse separated during the scutching operation escape, leaving the tow in a partially-cleaned condition.

E is a trough fitted beneath the revolving

knives C, and provided with a grated bottom of bars *f*, contiguous to which the knives C move.

G is a partition at the back of the machine, having an oblong opening, *d*, in line with trough E.

In the floor of the mill is an opening, *e*, beneath the trough E, for the escape of refuse matter.

In operation, the tow from the scutching-knives is received on the grated trough E, and is carried back by the knives C and thrown through the opening *d* of the partition G. During its passage over the grate the tow becomes freed from the shives and other refuse, which are separated by the beating action of the knives, and such refuse falls through the grated opening of the trough, the tow and refuse being thus separately delivered.

The tow cleaned in this manner is ready for packing and use without further cleaning, and is much superior and more valuable than tow cleaned in any manner heretofore known.

It will be seen that this tow-cleaning process being successive to the scutching process and a portion of the scutching machinery being utilized, the tow is not handled between the two processes, and separate machinery and power are not required, thereby lessening the expense of cleaning the tow and saving all the tow thrown off by the scutching-machines.

I do not limit myself to the particular form of trough and grate shown, as they may be made in other forms with the same effect.

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

The combination of the upright scutching-board A, having the opening *a*, the sieve or screen composed of vertical rods *b*, the rotary knives C, the bottom grated trough, E, placed under the knives and over a hole, *e*, in the floor, and the partition G, having opening *d*, whereby the tow may be received from a scutching-machine and cleaned, in the manner described.

WILLIAM KEANE.

Witnesses:

S. L. HAMILTON,
C. E. IRVINE.