

(No Model.)

E. SCHULZE.

MACHINE FOR SLICING SUGAR CANE.

No. 323,742.

Patented Aug. 4, 1885.

Fig 1.

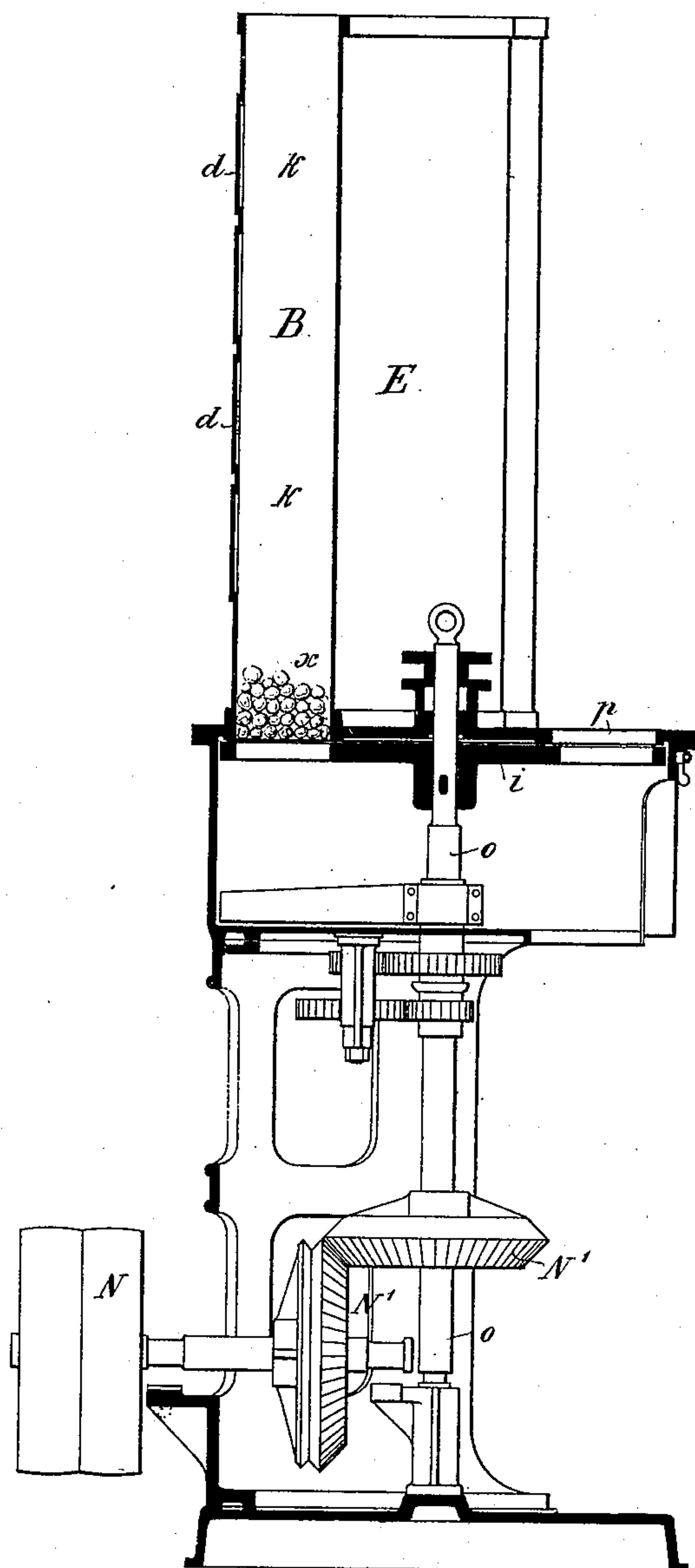


Fig 2.

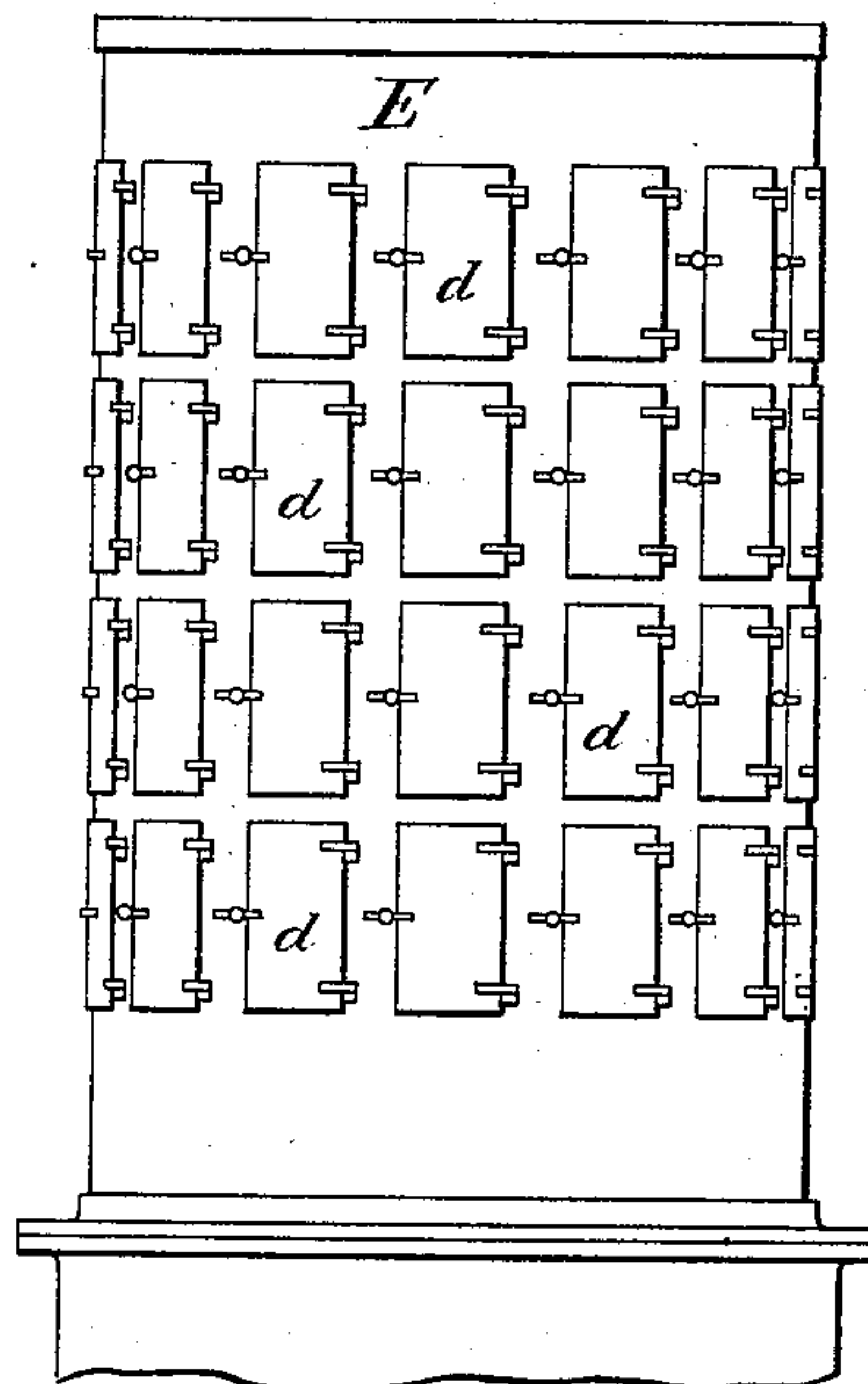
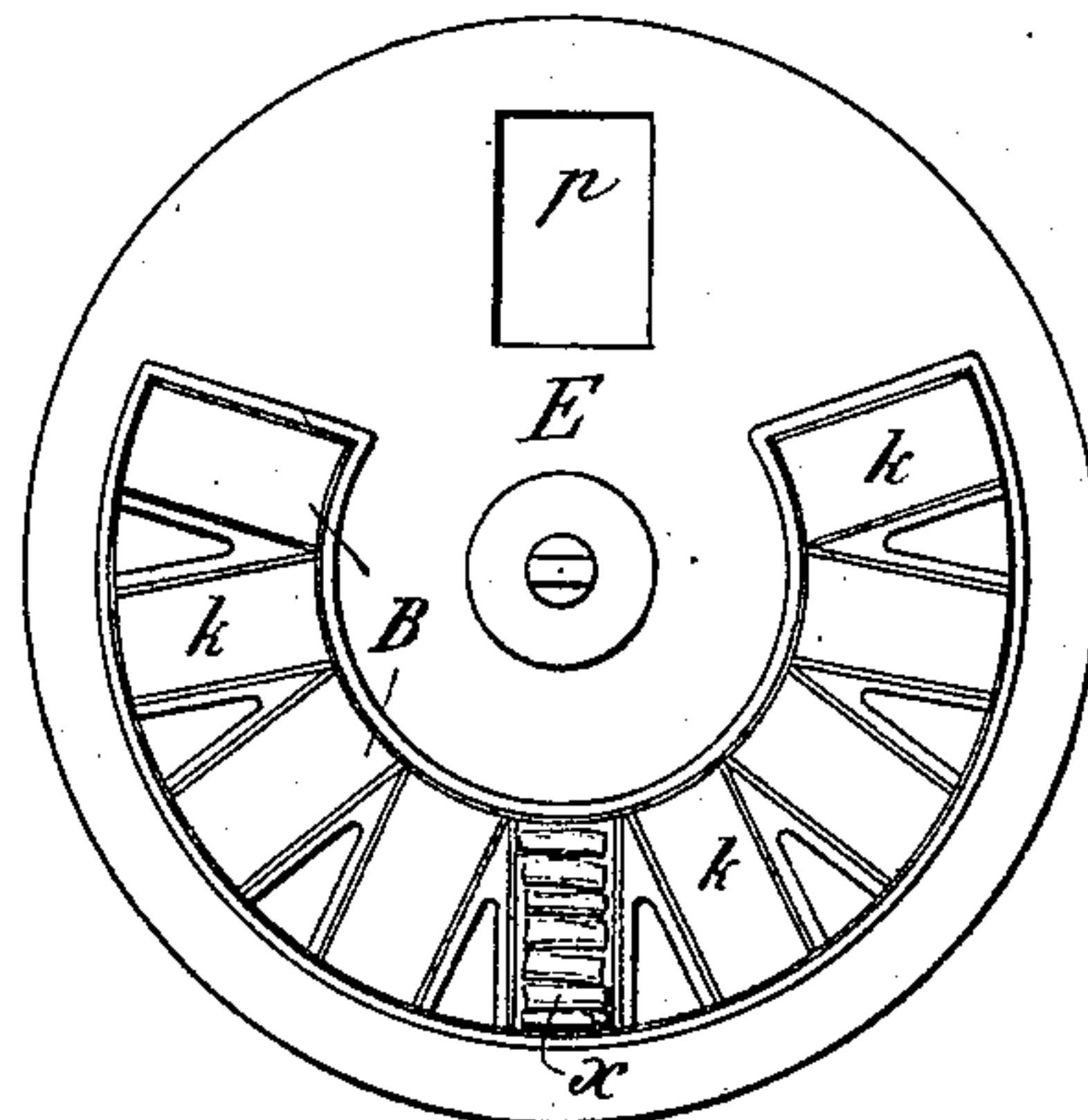


Fig 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

ERNST SCHULZE, OF AMSTERDAM, HOLLAND.

## MACHINE FOR SLICING SUGAR-CANE.

SPECIFICATION forming part of Letters Patent No. 323,742, dated August 4, 1885.

Application filed December 4, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ERNST SCHULZE, of the city of Amsterdam, in the Kingdom of Holland, have invented a certain new and useful Improvement in Machines for Slicing Sugar-Cane Preparatory to Obtaining the Sugar therefrom, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to an improved machine for slicing sugar-cane preparatory to obtaining the sugar therefrom, and its object is to cut up or divide the sugar-canes in such a manner that the sugar may be extracted therefrom by what is known as the "diffusion process." For this purpose my invention consists in the parts hereinafter particularly described and then specified in the claim.

In the accompanying drawings, Figure 1 is a vertical section of the paring or slicing machine; Fig. 2, a side elevation of a portion thereof; Fig. 3 a top view of the upper part of the latter.

Similar letters of reference indicate corresponding parts throughout the drawings.

The slicing or paring machine is substantially of the form and construction of the usual slicing-machines generally employed for slicing beet-root in the manufacture of sugar, and has the usual horizontally-rotating slicing or cutter-disk, *i*, of such machines. It is provided, however, with the cylindrical hopper *E*, of novel construction, arranged above the said disk *i*, and preferably made of sheet-iron or other suitable metal. The said hopper *E* is provided with a semi-annular space, *B*, which, by means of intermediate vertical walls, is divided into a number of compartments, *k*, of rectangular cross-section, each of said compartments being provided with a number of vertically-arranged doors, *d*, opening toward the outside. Part of the said cylindrical hopper above the disk *i* is left open at *p*, so as to allow of readily removing and inserting the cutters of the said disk for sharpening or for other causes.

The shaft *o*, carrying the revolving cutter-disk *i* of the slicing-machine, has rotatory motion imparted to it by means of the pulley *N* and the bevel-gearing *N N'*, in the manner well-known for such slicing-machines.

The sugar-cane is first cut into short cross-pieces, preferably from four to five inches long (more or less) by any suitable means, and are then delivered to the slicing or paring machine, where the said cross-pieces are placed in the compartments *k* of the cylindrical hopper *E* of the said machine, so as to lie parallel or nearly parallel with the outer wall of the said hopper, as shown at *x*, so that the cutters of the horizontally-revolving cutter-disk *i* can pare or cut away from the under side of the said cane-pieces thin strips in the longitudinal direction of the said pieces only.

The doors *d* are opened when the first portion of the cross-pieces from the cross-cutting machine is to be introduced into the compartments *k*, and are closed and secured after the latter have been filled up to their upper brims, whereupon the slicing-machine is started and the said compartments are kept full by placing fresh cross-pieces from above on top of those placed in before in the same ratio as their mass continues to descend in the compartments *k* under the action of the cutting-disk *i*, slicing them away from below.

The thin strips of sugar-cane thus obtained allow of the employment of the diffusion process for extracting the sugar therefrom.

I wish it to be understood that I do not confine myself to the particular disk form of cutter shown for slicing the cane, as any suitable form may be employed without deviating from my invention.

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

The combination, in a machine for slicing sugar-cane, of a hopper divided into vertical compartments, and having lateral openings provided with doors, and a cutter to slice the cane as it passes from said hopper, substantially as described.

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

ERNST SCHULZE.

Witnesses:

JOHANNES ANDREUS BINNEBÖRZ,  
AUGUST SIEGFRIED DOCEN.