

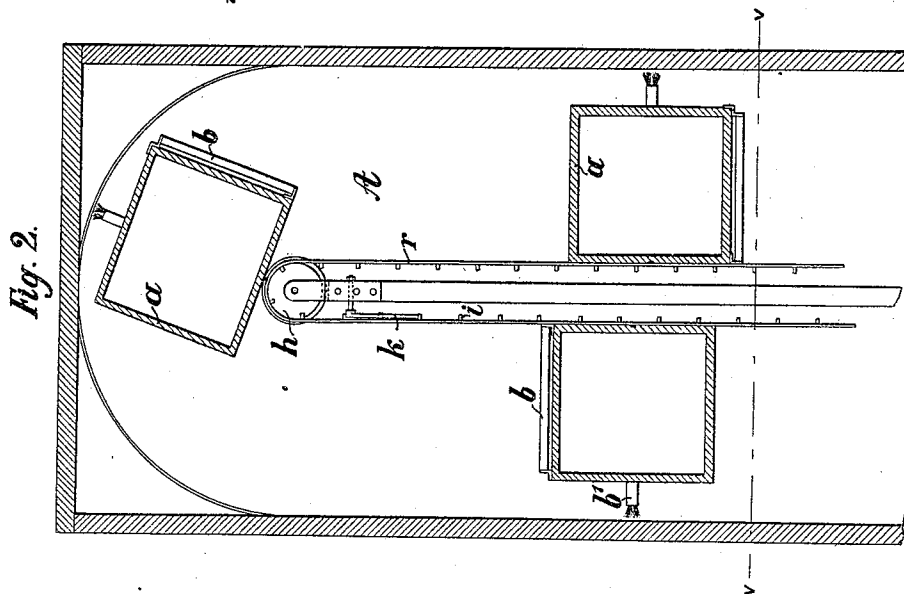
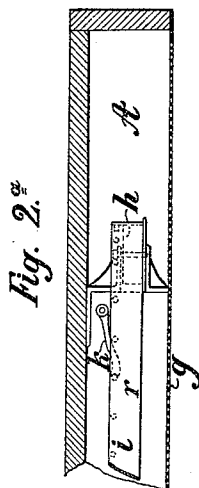
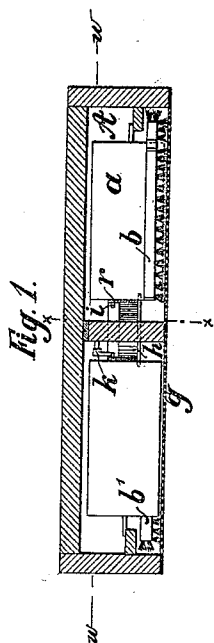
(No Model.)

2 Sheets—Sheet 1.

H. SECK.
TRAVELING BRUSH.

No. 466,189.

Patented Dec. 29, 1891.



Witnesses:-
J. A. Rutherford.
Robert Everett.

Inventor:
Heinrich Seck
By James D. Norris.
Attorney.

(No Model.)

2 Sheets—Sheet 2.

H. SECK.
TRAVELING BRUSH.

No. 466,189.

Patented Dec. 29, 1891.

Fig. 3.

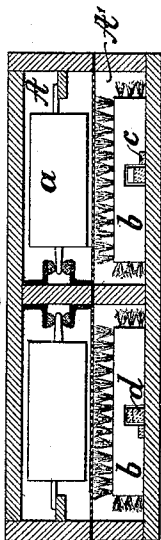


Fig. 4.

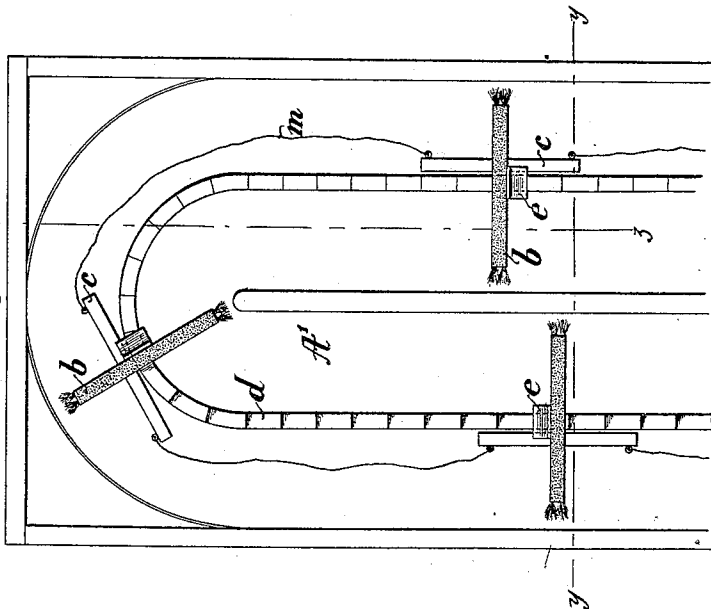


Fig. 5.

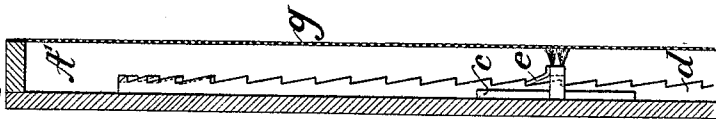


Fig. 6.

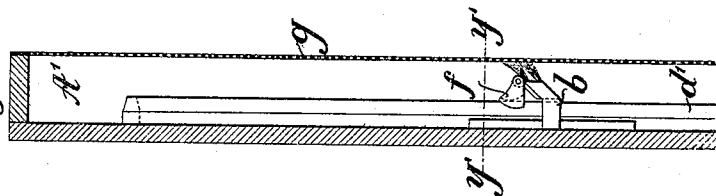
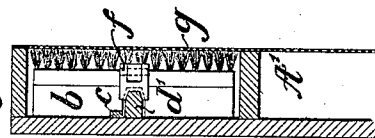


Fig. 7.



Witnesses:—
J. A. Rutherford.
Robert Corbett.

Inventor:
Heinrich Seck
By James L. Norris.
Attorney.

UNITED STATES PATENT OFFICE.

HEINRICH SECK, OF DRESDEN, GERMANY.

TRAVELING BRUSH.

SPECIFICATION forming part of Letters Patent No. 466,189, dated December 29, 1891.

Application filed August 20, 1891. Serial No. 403,230. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH SECK, of Dresden, in the Kingdom of Saxony and German Empire, have invented a certain new and useful Improvement in Traveling Brushes for Use in Sifting Apparatus or Sifters, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates more particularly to such sifting apparatuses having flat sieves, the carrying-frames of which, by any of the well-known means, are given a succession of horizontal or approximately horizontal movements in a circular or curved direction, or which are rocked in a rectilinear or nearly rectilinear direction; and the object of my invention is to provide novel means for keeping the sieves or sifting-surfaces of such sifting apparatuses clean by removing therefrom such particles of the flour, middlings, or other material to be sifted, or any other obstructions as may have settled between the meshes of the sifting-surfaces. To accomplish this object my invention involves the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of the improved sifting apparatus, taken on the line *v v*, Fig. 2. Fig. 2 is a horizontal sectional view taken on the line *w w*, Fig. 1. Fig. 2^a is a detail vertical sectional view taken on the line *x x*, Fig. 1. Fig. 3 is a vertical sectional view showing a modification of the invention, the plane of section being on the line *y y*, Fig. 4. Fig. 4 is a plan view of the same, omitting the sieve-cloth and the upper half of the sieve-frame exhibited in Fig. 3. Fig. 5 is a detail sectional view on the line *z z*, Fig. 4. Fig. 6 is a detail longitudinal sectional view of a modified construction; and Fig. 7 is a sectional view taken on the line *y' y'*, Fig. 6.

Reference being had to Figs. 1, 2, and 2^a of the drawings and to the mode of arrangement thereby illustrated, the brushes *b* are fastened to the carrier-frames *a*, arranged within the sieve-frame *A*, the said frames being attached to an endless band *r*, carried over rollers *h*. The endless band *r* is provided with a ratchet composed of pegs or teeth

i, engaged by a pawl *k*, arranged on a standard or rib within the apparatus, the said pawl riding the teeth or pegs on the band as the same is moved in one direction, but engaging the said teeth or pegs against a movement of the band in the opposite direction. When the sieve-frame is given a circular or curved horizontal or approximately horizontal or a straightforward rocking movement by any of the well-known means not here shown, the brushes, with their carrying-frames, will be swung with the tendency of a reciprocating movement over the sifting-surface, the said movement being limited in one direction by the pawl *k* engaging the teeth *i* on the endless band *r*, while, the said band being free to move in the opposite direction, the brushes will in following the endless band be gradually or stepwise carried around on the sifting-surface. The flour or other material to be sifted having been introduced into the apparatus in the usual manner will be carried along over the sifting-surface by the motion of the sieve, and the traveling brushes, scraping against the said surface, will thereby clean effectually the several meshes thereof, pushing through the same any of the material which may have settled therein, thus keeping the meshes of the sieve continually open, and thereby securing a proper action of the apparatus. At the same time, in the arrangement as shown in Figs. 1, 2, and 2^a of the drawings the said brushes, while traveling over the surface of the sieve, will assist in conveying the material deposited on said surface across the latter by imparting a positive movement to the said material, as will be readily understood.

In the modified form of arrangement illustrated in Figs. 3, 4, and 5 of the drawings the brushes *b*, instead of being arranged above the sifting-surface, are shown as being arranged below the same, so as to enter the meshes from underneath, and thus to clean the same by pressing out the obstructions in an upward direction. The brushes *b* are here shown as being attached by means of a saddle to carrying-blocks *c*, connected with each other by strings or chains and moving on an endless ratchet-bar *d*, arranged within the sifting apparatus below the sifting-surface, the teeth of the said bar being engaged by

pawls *e*, preferably made of leather or other flexible material and projecting laterally from the carrying-blocks *c* of the brushes. When the sieve-frame is given the usual curved
5 horizontal or rectilinear rocking movement, the said pawls *e* will ride the teeth of the ratchet in one direction, the brushes being thus carried around within the apparatus
10 with their carrying-blocks *c* in the same manner as hereinbefore described with reference to the brushes arranged above the sifting-surface.

Instead of a ratchet-bar and pawl, I may also, in the modified arrangement, as shown
15 in Figs. 6 and 7 of the drawings, provide a smooth endless guide bar or rib *d'*, engaged by the friction of a cam *f* of the brushes *b* in one direction of the movement of the latter, while in the other direction of movement the
20 said cam will slide freely on the said guide-bar.

I wish it to be understood that I do not confine myself to the special constructions and arrangements of parts as shown in the accompanying drawings, but that I consider as
25 falling within the scope of my present invention all sifting apparatuses provided with rotary or rocking sieves having combined therewith brushes moved along the surface of the
30 said sieves in a predetermined direction by the motion of the latter and prevented from retrograde movement by special devices adapted for the latter purpose.

Having thus fully described my invention,

what I desire to claim and secure by Letters Patent is—

1. In a sifting apparatus, the combination, with a movable sieve, of one or more traveling brushes receiving the required motion from the motion of the said sieve, and a pawl
40 independent of the brushes for preventing a movement of said brushes in a direction opposite to that in which they are traveling, substantially as and for the purposes specified.

2. In a sifting apparatus, the combination, 45 with a movable sieve and one or more traveling brushes carried on an endless band, of a pawl engaging with pegs or teeth on the said endless band and preventing a movement of the said band and its brush or brushes in one
50 direction, but allowing the same to move freely in the opposite direction, substantially as and for the purpose set forth.

3. In a sifting apparatus, the combination, with a movable sieve-frame and a traveling
55 brush moved by the momentum of the sieve-frame, of a pawl-and-ratchet mechanism for preventing movement of the brush in a direction opposite to that in which it is caused to travel by the momentum of the sieve-frame,
60 substantially as described.

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

HEINRICH SECK.

Witnesses:

PAUL DRUCKMÜLLER,
HERNANDO DE SOTO.