

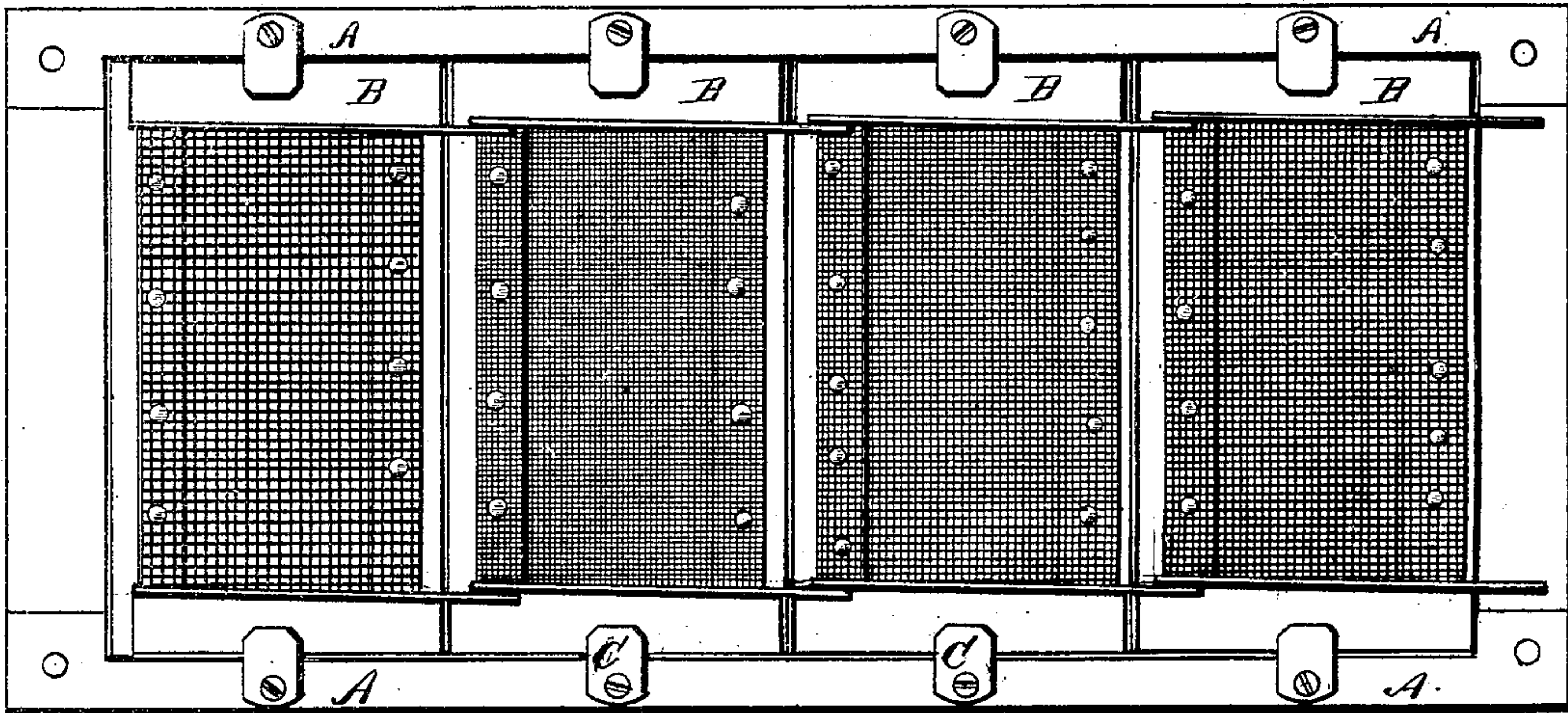
W. W. HUNTLEY.

Screens for Middlings Purifiers.

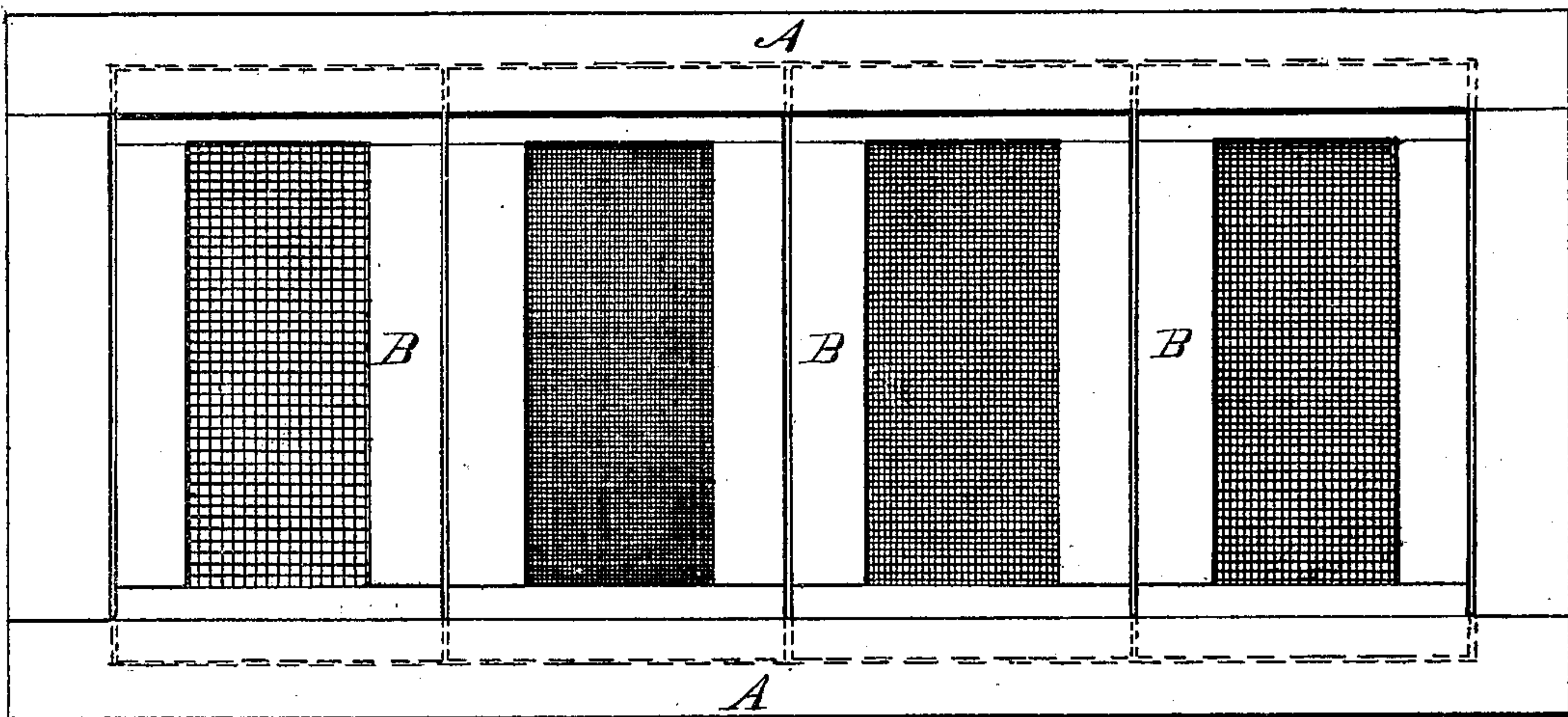
No. 143,014.

Patented September 23, 1873.

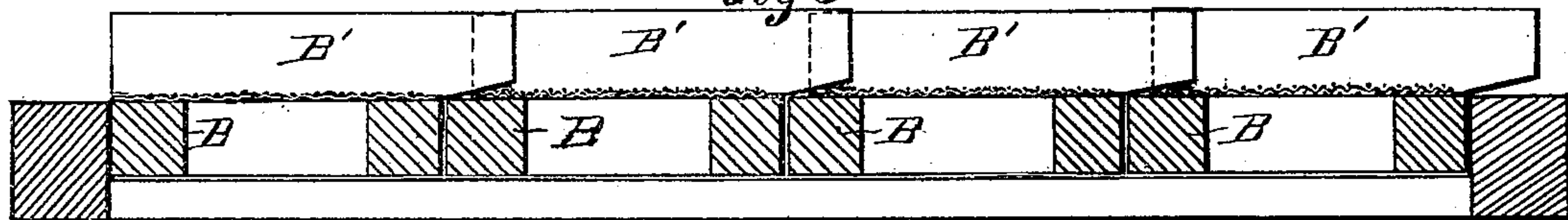
*Fig 1*



*Fig 2*



*Fig 3*



*Witnesses*

*W. Bradford*  
*A. Ruppert*

*Inventor*

*Wm. W. Huntley*  
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*Attys*



# UNITED STATES PATENT OFFICE.

WILLIAM W. HUNTLEY, OF SILVER CREEK, NEW YORK, ASSIGNOR TO W. W. HUNTLEY, A. P. HOLCOMB, AND AUG. HEINE, OF SAME PLACE.

## IMPROVEMENT IN SCREENS FOR MIDDINGS-PURIFIERS.

Specification forming part of Letters Patent No. **143,014**, dated September 23, 1873; application filed December 30, 1872.

*To all whom it may concern :*

Be it known that I, WILLIAM W. HUNTLEY, of Silver Creek, in the county of Chautauqua and State of New York, have invented certain Improvements in Bolts or Sieves for Middlings-Purifiers and for other purposes, of which the following is a specification:

Figure 1 is a plan view of my improved bolt or sieve, showing the frame in which the sieves or bolting-cloths are placed, the small frames to which the cloths are attached, the buttons for holding the said frames in position, and the upwardly-extending and overlapping flanges. Fig. 2 is a bottom view, showing the construction of the frames; and Fig. 3 is a longitudinal central section.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to that class of bolts or sieves which are especially adapted for use in machines for purifying middlings, but which are applicable to all kinds of bolts to which an oscillating or vibrating movement is given; and it consists in constructing such bolts or sieves of a series of interchangeable and reversible sections, each one being covered with cloth having a different-sized mesh, or of different degrees of fineness, in order that the same bolt or sieve may be advantageously used while grinding different qualities of grain, as will be more fully described hereinafter.

In constructing devices of this character I use a frame, A, of such dimensions as will allow it to receive and support a sufficient number of smaller frames, for a purpose soon to be explained. This frame will require to be of a length and width that shall be proportioned to the work to be done, different-sized machines requiring different amounts of bolting or sifting surface. The upper inner surfaces of this frame have a rabbet cut in them, to adapt them for the reception of the smaller frames which they are to carry, the whole being suspended upon springs or oscillating rods, or it may be placed upon rollers, or otherwise arranged, so as to have an oscillating or vibrating movement given to it to cause it to keep the material upon its surface in motion, and thus cause the finer and more valua-

ble portions to pass through the sieves, and the coarser portions to pass over its entire length, and be delivered at the end which is opposite to the one upon which the material is received. The interchangeable and reversible portion of this device consists of a series of small frames, B B, which are of such form as to permit them to be placed in the rabbet formed in the frame A, and of such dimensions as to cause the sieves to fill said rabbet, they being covered with bolting-cloth of the required mesh, the numbers of such cloth varying according to circumstances, and according to the position which it is to occupy in the sieve. To the upper surfaces of the frames B flanges B' are attached, which may consist of strips of metal or of wood, the two portions of which shall form a right angle, or such an angle as to enable them to prevent the material from falling off from the sides of the sieve in passing it, and in order that this result may be the more effectually accomplished, the upwardly-projecting portions of the flanges are made to overlap each other in the manner shown, so that no part of the material can pass out between them. The frames B are secured in their positions with reference to the frame A, by means of buttons C, which are secured thereto by screws, and are so arranged that they can be turned to allow of the removal of the sieves when it becomes necessary to change their positions.

Some of the advantages due to this construction of a bolt or sieve may be enumerated as follows: It makes it possible to provide a bolt capable of doing satisfactory work when the mill is running on different kinds or qualities of grain, and when the stones are so arranged as to grind fine or coarse, it only requiring that the position of the frames which are covered with the finer cloth be changed with reference to those which are covered with coarser cloth, as, for instance, when the running stone is raised for the purpose of grinding coarse, and it is desirable all of the valuable part of the middlings should be conveyed to a receptacle from which they can be conveyed directly to the eye of the stone to be reground, then a coarser cloth should be the first of the series; but when it is desirable



to separate the finest portions from the coarser, and leave only the coarser to be reground, then a frame having the finest cloth should be the first in the series, and a coarser one the second. Another, and an important advantage resulting from this construction is, that the height of the machine is very much reduced, as a consequence of which it can be placed in portions of the mill where it would not be possible to place it if the series of sieves or bolts were arranged vertically.

I am aware that sieves have heretofore been used that were removable from the frame upon which they were placed, they being thus made for the purpose of enabling the operator to change the sets, in the event of their becoming foul, for others that had been cleaned; but those were not interchangeable in their frame, in which respect they differ from mine, which

are interchangeable and reversible in their frame, as well as removable therefrom.

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

A bolt or sieve, consisting of a series of longitudinally-interchangeable and reversible sections, said sections being covered with bolting-cloth of different numbers or degrees of fineness, substantially as and for the purpose set forth.

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

WILLIAM W. HUNTLEY.

Witnesses:

A. P. HOLCOMB,  
A. H. SPAULDING.

1.2.3  
words