A. P. HOLCOMB & A. HEINE.

Means for Clearing the Meshes of Bolting-Screens.

No. 218,530. **Patented Aug. 12, 1879.**

Fig. 1.

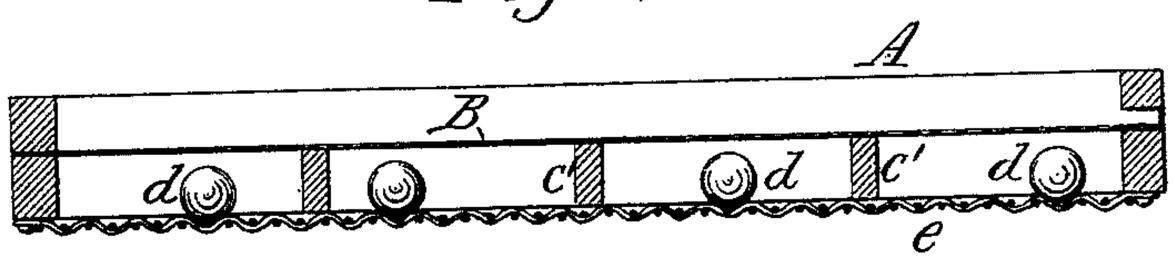
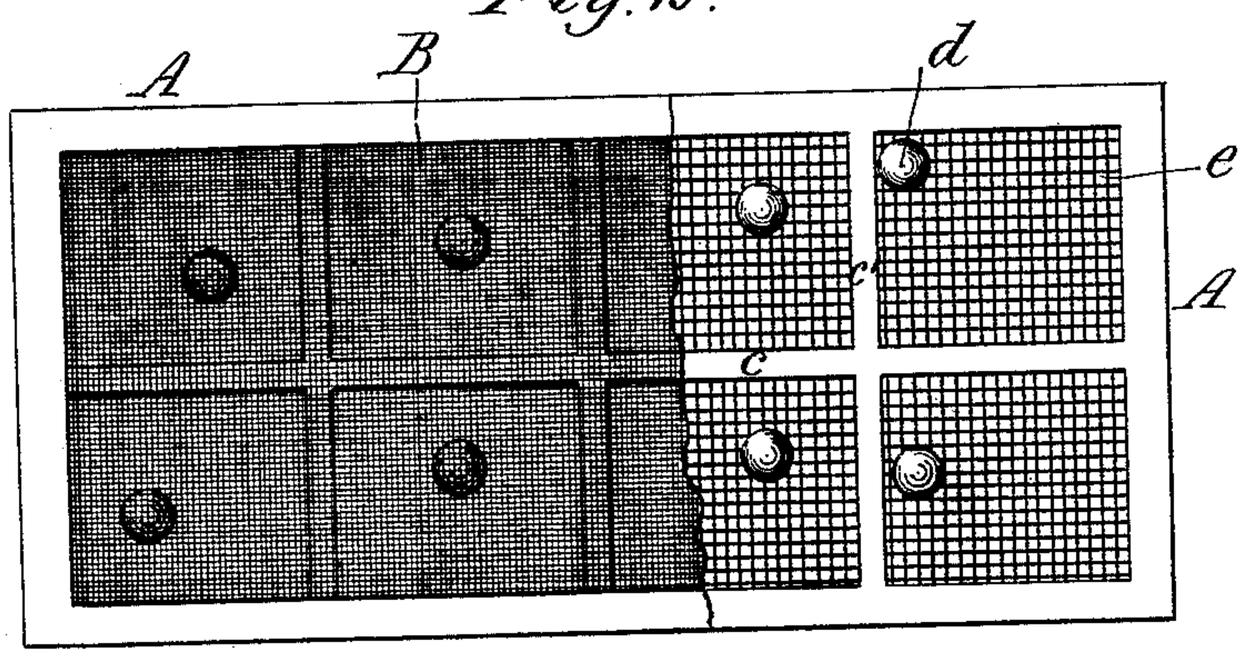


Fig. 2.



Witnesses:

Chas. J. Buchheit sen.
Edw. J. Brady.

A. P. Holcomb
Aug. Heine *Inventors.*
By Wilhelm & Bonner
Attorneys.

UNITED STATES PATENT OFFICE.

ABEL P. HOLCOMB AND AUGUST HEINE, OF SILVER CREEK, NEW YORK, ASSIGNORS TO HUNTLEY, HOLCOMB & HEINE, OF SAME PLACE.

IMPROVEMENT IN MEANS FOR CLEARING THE MESHES OF BOLTING-SCREENS.

Specification forming part of Letters Patent No. **218,530**, dated August 12, 1879; application filed June 19, 1879.

To all whom it may concern:

Be it known that we, ABEL P. HOLCOMB and AUGUST HEINE, both of Silver Creek, in the county of Chautauqua and State of New York, have invented a new and useful Improvement in Means for Cleansing the Meshes of Bolting-Screens, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to a device for jarring or agitating the bolting-cloth of the vibrating screens in middlings-purifiers and other bolting-machines, so as to prevent the meshes of the bolting-cloth from clogging or filling up.

Previous to our invention loose balls have been arranged upon the upper surface of the vibrating screens, so as to pass back and forth over the bolting-cloth, and thereby jar the same and dislodge any material which might adhere to the same or clog its meshes; but this arrangement is objectionable, as the weight of the balls causes a rapid wearing of the bolting-cloth, and very soon renders the same unfit for use.

The object of our invention is to obviate this difficulty; and it consists in arranging the balls on the under side of the screen upon an open or perforated supporting-surface, so that the balls in traveling back and forth under the bolting-cloth will deliver light blows against the cloth, whereby its meshes are kept open, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a sectional elevation of a bolting-screen provided with our improvement. Fig. 2 is a top-plan view of the same with a portion of the bolting-cloth removed.

Like letters of reference designate like parts in both figures.

A represents the frame of a rectangular bolting-screen, of ordinary construction. B is the bolting-cloth stretched over the screen-frame A, and *c c'* are the longitudinal and transverse connecting-pieces of the screen-frame A, which form open pockets or compartments on the under side of the screen.

d represents loose balls, preferably made of rubber or other light and elastic material, and arranged on the under side of the bolting-cloth, within the compartments formed by the pieces *c c'*, and resting upon an open or perforated surface, *e*, secured to the under side of the screen-frame.

The surface *e* is preferably formed of wire-cloth having a comparatively large mesh, and the balls *d* are made of such size that there will be a clear space, preferably about an eighth of an inch, between the top of each ball and the bolting-cloth B.

The screen-frame A is made slightly inclined toward its tail end, or hung so that its motion will impel the material toward the tail end, and a vibratory or shaking motion is imparted to the screen in any usual and well-known manner. The vibrating motion of the screen causes the balls *d* to pass back and forth in their compartments with a peculiar dancing or jumping motion, whereby the balls are made to impinge against the under side of the bolting-cloth and deliver light blows against the same, just sufficient to completely clean the meshes of the bolting-cloth from any matter which may adhere to the same.

The supporting-surface *e* is preferably formed of wire-cloth or other material having a rough surface, as the inequalities of this surface materially aid in imparting to the balls the desired vertical motion, which brings them in contact with the bolting-cloth.

The openings in the surface *e* should be large enough to permit of the free passage of the material, which is sifted through the meshes of the screen, but not so large that the balls will wedge in said openings. As both the bolting-cloth and the wire-cloth *e* are elastic, the balls will be kept continually vibrating from one surface to the other while the screen is in motion.

The bolting-cloth is, by our improved arrangement, entirely relieved from the weight of the balls, which are supported by the surface *e*, and the cloth is consequently subjected only to the ordinary wear and tear.

Our improved means for clearing the meshes of the bolting-cloth is very simple, cheap, and effective, and entirely noiseless in its operation.

We claim as our invention—

1. As a means of cleansing or freeing the meshes of bolting-screens, loose balls arranged on the under side of the screen, and supported by an open or perforated surface, substantially as set forth.

2. The combination, with a vibrating bolting-screen provided with pockets or compartments on its under side, of loose balls *d*, arranged in said compartments, and a rough perforated surface, *c*, by which said balls are supported, substantially as set forth.

A. P. HOLCOMB.
AUG. HEINE.

Witnesses:
EDWARD WILHELM,
JNO. J. BONNER.