(No Model.)

T. J. GRIER.

ORE SCREEN.

No. 448,762. Patented Mar. 24, 1891.

Fig. 1.

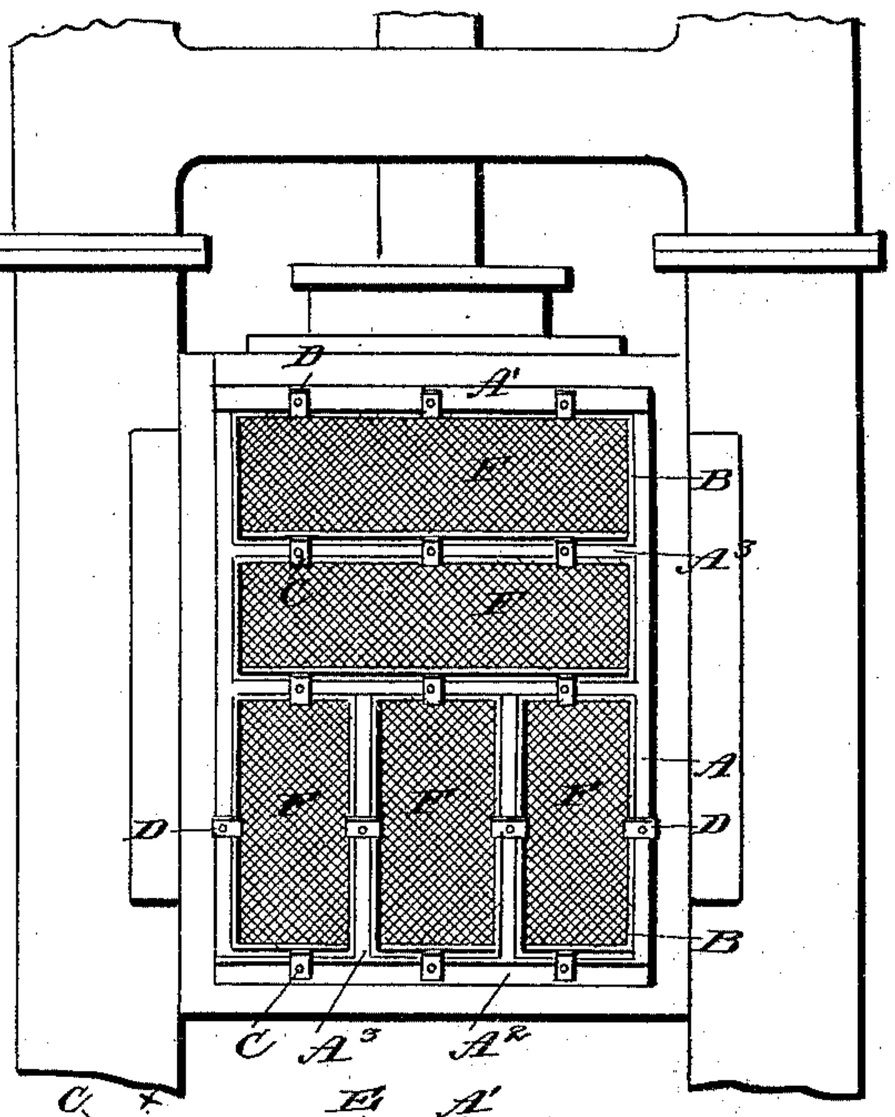


Fig. 2.

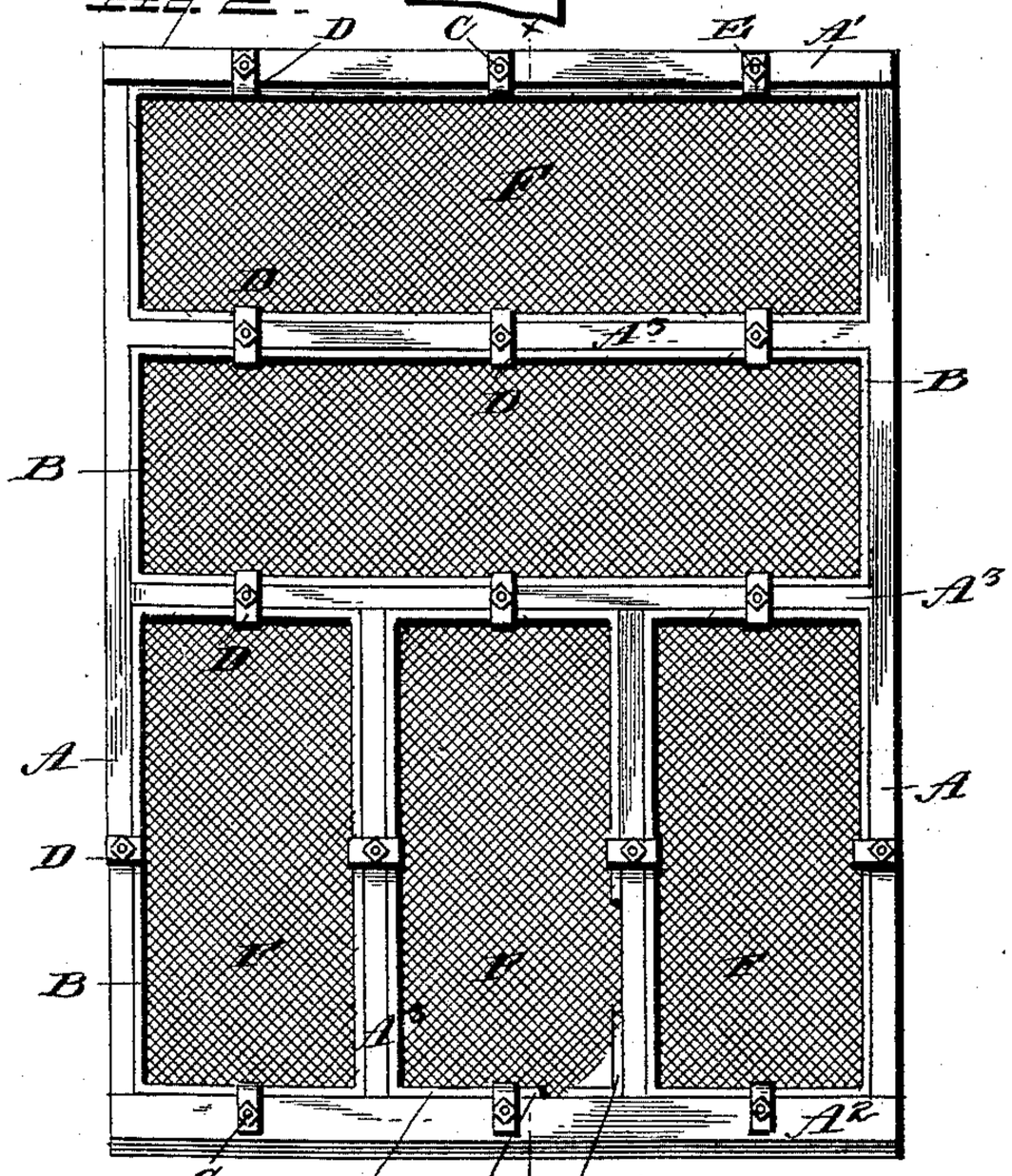
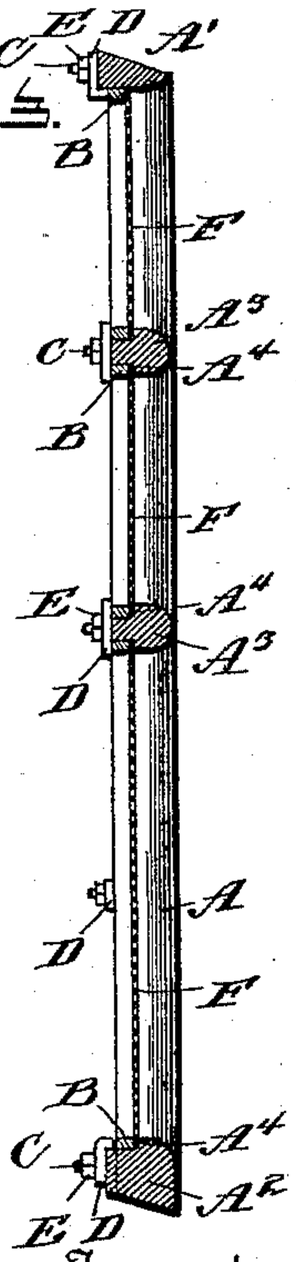


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS J. GRIER, OF LEAD CITY, (DAKOTA TERRITORY,) SOUTH DAKOTA.

ORE-SCREEN.

SPECIFICATION forming part of Letters Patent No. 448,762, dated March 24, 1891.

Application filed June 24, 1889. Serial No. 315,389. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. GRIER, a citizen of the United States, residing at Lead City, in the county of Lawrence, Territory of Dakota, have invented certain new and useful Improvements in Ore-Screens, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to an improvement in screens, and more particularly to that class of screens used in ore-stamps, the main objects of the invention being to provide a screen which can be easily taken apart for repairs and to effect a saving in the screen material.

Other objects and advantages of the invention will appear in the following description, and the novel feature thereof will be particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a side elevation of a portion of a stamp-mill, showing the screen in an operative position. Fig. 2 is a side elevation of the screen on a larger scale, and Fig. 3 is a vertical cross-section of the screen.

Like letters of reference indicate like parts in all the figures of the drawings.

The main frame of the screen, when intended for use in an ore-stamp, is made, as shown in the drawings, of the side pieces A and the top and bottom pieces A′ and A^2, respectively, and the cross-bars A^3. These parts may be made separately and then fastened in any suitable manner, or the whole frame may be cast in one piece. The inner sides of the side pieces A and the end pieces A′ and A^2 and both sides of the cross-pieces A^3 are formed with the shoulders A^4, upon which and flush with the surface of the frame the small frames B are adapted to rest. The bolts C, screw-threaded on their ends, are adapted to receive the buttons D, which are held in place and adjusted by means of the nuts E.

The screening material F, which is generally perforated sheet metal, as in Fig. 3, but may be wire-cloth, is made in sizes to fit each small compartment formed by the side and end pieces A, A′, and A^2 and the cross-pieces A^3. These sheets F are held firmly in place upon the shoulders A^4 by means of the frames B, held by the bolts, buttons, and nuts C, D, and E, respectively. In a screen constructed in this manner one section of the cloth when worn out can be removed and a new one inserted without disturbing the main frame or any of the other sections. In this way a great saving is effected when repairs have to be made.

I do not limit myself to the form of screen shown and described. It is evident that the main frame may be divided up into smaller compartments of various shapes and sizes by varying the number and shape of the cross-pieces. Curvilinear compartments and compartments combining both curved and straight lines may be used, if desired.

What I claim is—

A stamp-mill screen or sieve comprising a main frame divided into vertical series of compartments, and independently-removable screens and screen-frames fitting said compartments, whereby any one section of the screening material may be removed independent of the others as it becomes worn, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS J. GRIER.

Witnesses:

WM. A. REMER,

FRED E. NELSON.