

J. A. LAWLOR.

CLAY SCREEN.

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973,441.

Patented Oct. 18, 1910.

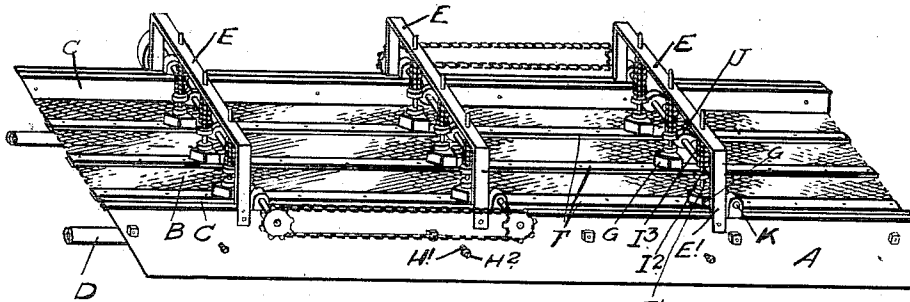


FIG. 1.

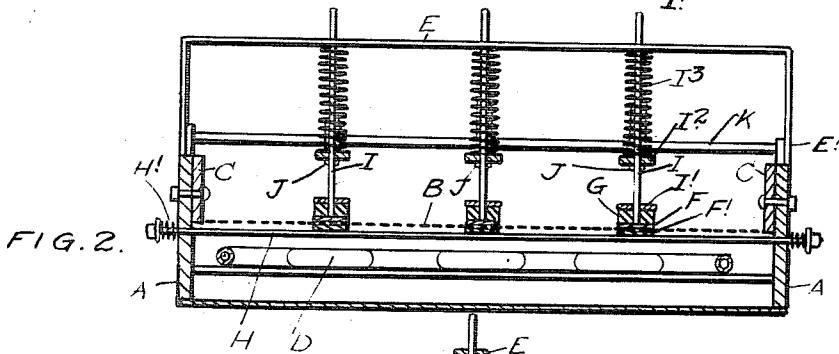


FIG. 2.

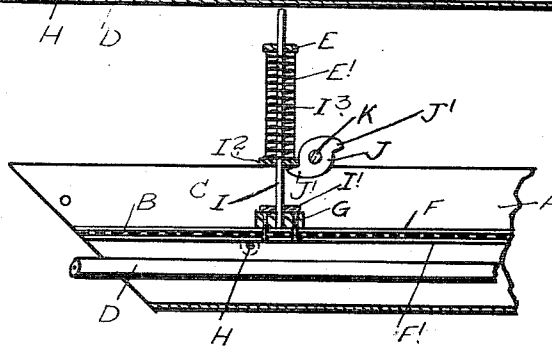


FIG. 3.

WITNESSES.

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CLAY-SCREEN.

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To all whom it may concern:

Be it known that I, JAMES ALEXANDER LAWLOR, of the city of Prince Albert, in the Province of Saskatchewan, Canada, have
5 invented certain new and useful Improvements in Clay-Screens, of which the following is the specification.

My invention relates to improvements in clay screens, and the object of the invention
10 is to devise a screen of this character particularly adapted for screening pulverized clay used for making dry pressed bricks, which will automatically screen and clear
15 itself, and thus effectually prevent choking, and furthermore dispense with labor of men using a brush in order to keep the screen clear.

Figure 1, is a perspective view of my improved screen. Fig. 2, is an enlarged cross
20 section. Fig. 3, is an enlarged longitudinal section of portion of a screen.

In the drawings like letters of reference indicate corresponding parts in each figure.

A A are the side boards of the screen.
25 B is the screen proper, which is made of any desired mesh for screening pulverized clay.

C are supplemental side bars secured to the inside of the bars A and to which the
30 bottom of the screen B is secured.

D are heating pipes suitably supported beneath the screen and designed to keep the clay dry as it passes over the screen.

E are a series of cross bars attached to or
35 forming part of the end standards E'.

F F' are a series of longitudinal slats secured at the top and bottom of the screen by
suitable rivets or other means.

G are a series of blocks located on the
40 top of the slats F.

H are a series of rods extending through the side bars of the screen and upon which the slats F' rest. The ends of the rods are
45 provided with springs H' to the outside of which are located the nuts H². The rods H being so held at the ends form a spring or resilient bed for the slats F'.

I are a series of plunger rods, which extend through the cross bars E into holes in
50 the blocks G.

I' are collars secured in the lower ends of the plunger rods.

I² are collars secured intermediate of the plunger rods and I³ are springs interposed
55 between the springs I² and the cross bars E.

J are a series of trip cams secured on the

cross-rod K, which are journaled in suitable bearings K' on the side bars A. The trip
cams are provided with tripping teeth J'. The teeth pass underneath the collars I² in
60 their rotation and as the teeth pass the collars force the rods upwardly and the springs I³ force them downwardly, and thereby impart a vibratory movement to the screen, which effectually dislodges any clay, which
65 might have a tendency to stick in the mesh of the screen.

Such a device as I describe is simple, cheap, requires practically no attention and dispenses with the use of men using brushes
70 for keeping the screen clean.

Although I have described in detail the manner in which my invention is performed and the construction thereof, it will, of course, be understood that modifications may
75 be made in the same without departing from the spirit of the invention.

What I claim as my invention is:

1. A frame comprising side boards suitably connected together, a screen extending
80 between the side boards, longitudinal bars extending along the screen and suitably secured thereto, rods extending from side board to side board below the screen and provided with spiral springs encircling the ends
85 thereof and nuts on the ends of the rods said rods forming a support for the screen, and means for imparting a vibratory movement to the bars as and for the purpose specified.

2. A frame comprising side boards suitably connected together, a screen extending
90 between the side boards, longitudinal bars extending along the screen and suitably secured thereto, resilient means for supporting the bars, blocks located on the top of the
95 bars, cross bars suitably supported on the side boards, plungers extending into the blocks and through the cross bars, collars located on the plungers and spiral springs
100 extending between the collars and the cross bars, and means for imparting a vibratory movement to the plungers as and for the purpose specified.

3. A frame comprising side boards suitably connected together, a screen extending
105 between the side boards, longitudinal bars extending along the screen and suitably secured thereto, resilient means for supporting the bars, blocks located on the top of the
110 bars, cross bars suitably supported on the side boards, plungers extending into the blocks and through the cross bars, collars

located on the plungers and spiral springs extending between the collars and the cross bars, and means for raising the plungers and allowing them to drop as and for the purpose specified.

4. A frame comprising side boards suitably connected together, a screen extending between the side boards, longitudinal bars extending along the screen and suitably secured thereto, resilient means for supporting the bars, blocks located on the top of the bars, cross bars suitably supported on the side boards, plungers extending into the

blocks and through the cross bars, collars located on the plungers and spiral springs extending between the collars and the cross bars, a cross shaft journaled in suitable bearings and suitably driven, and toothed cams located in the cross shaft and designed to co-act with the collars on the plungers as and for the purpose specified.

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Witnesses:

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