

C. ERICKSON.
GOLD SAVING RIFFLE.
APPLICATION FILED JUNE 19, 1909.

967,745.

Patented Aug. 16, 1910.

Fig. 1.

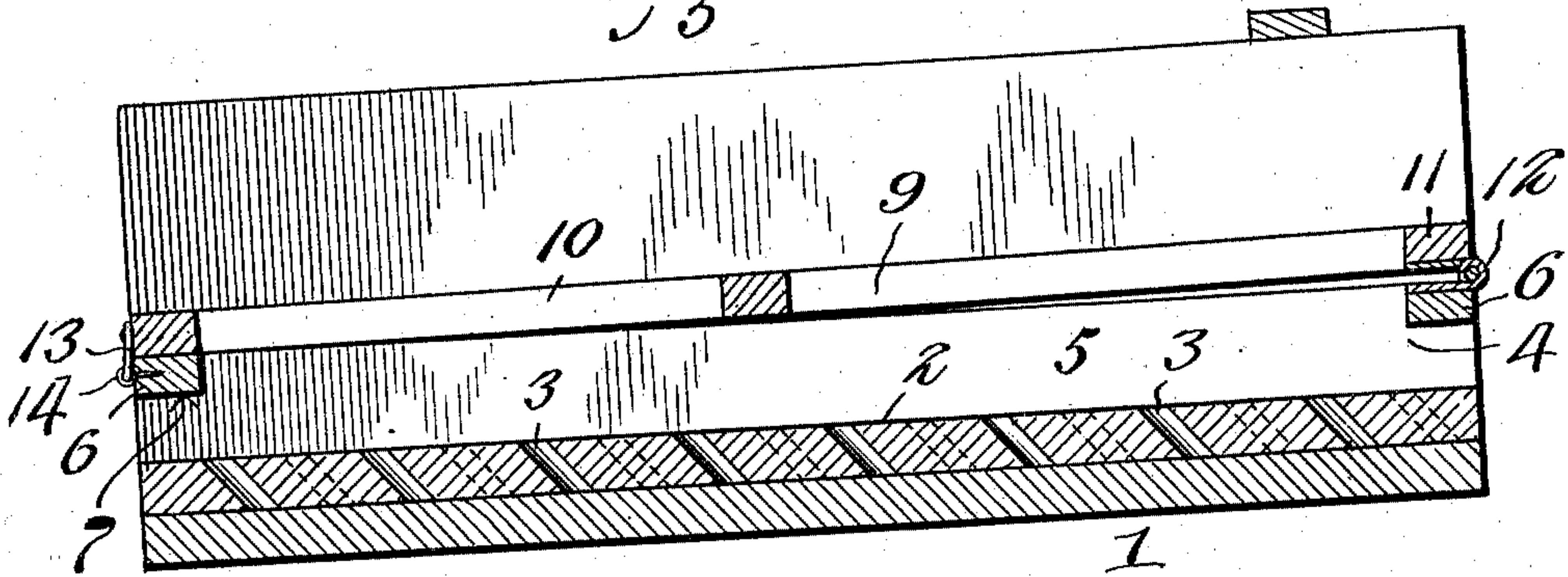


Fig. 2.

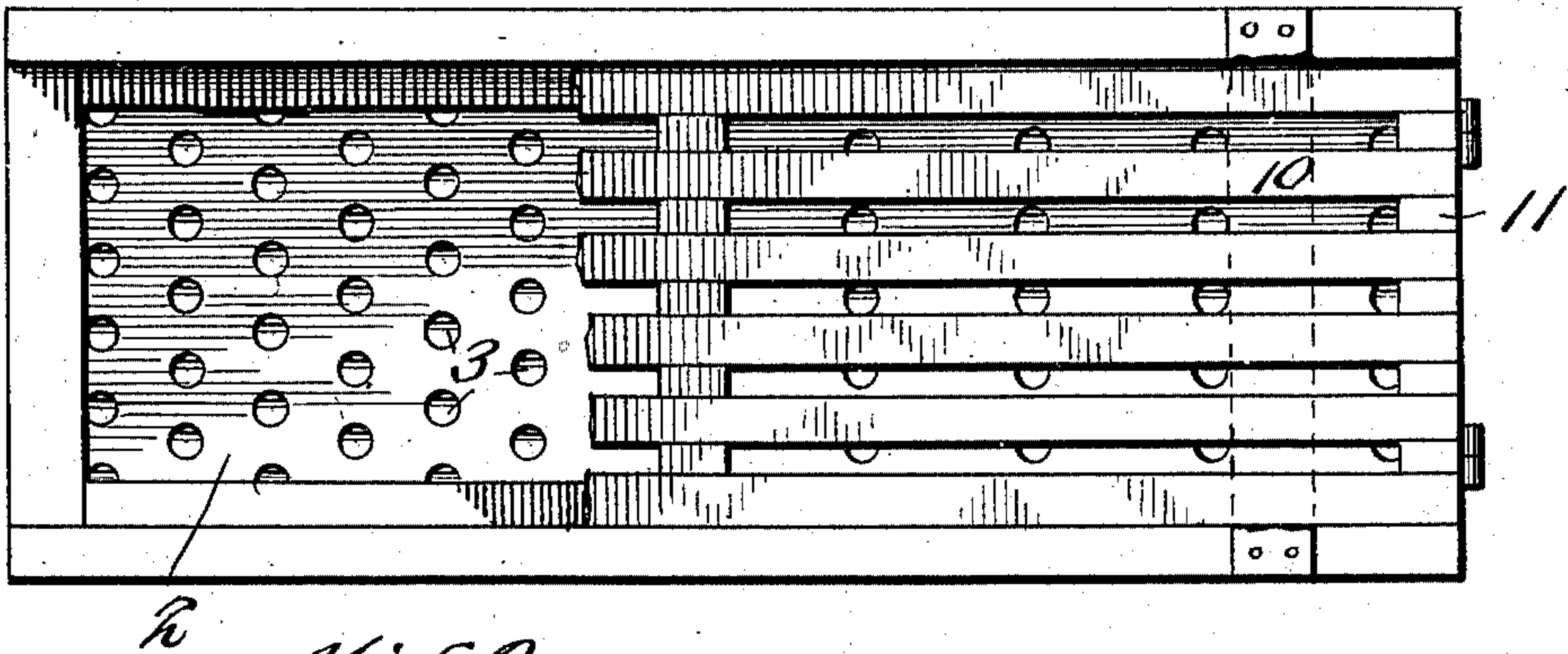


Fig. 3.

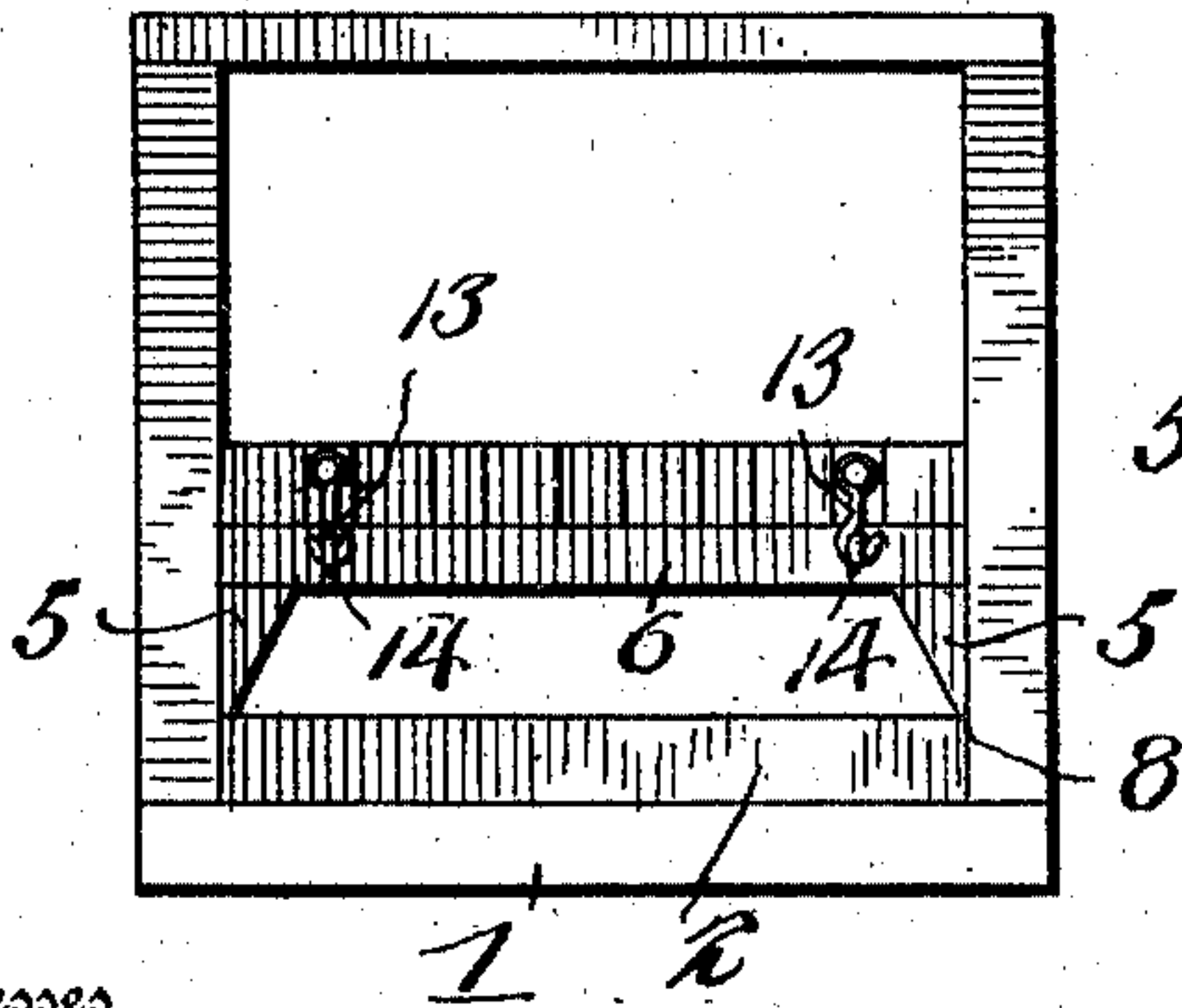
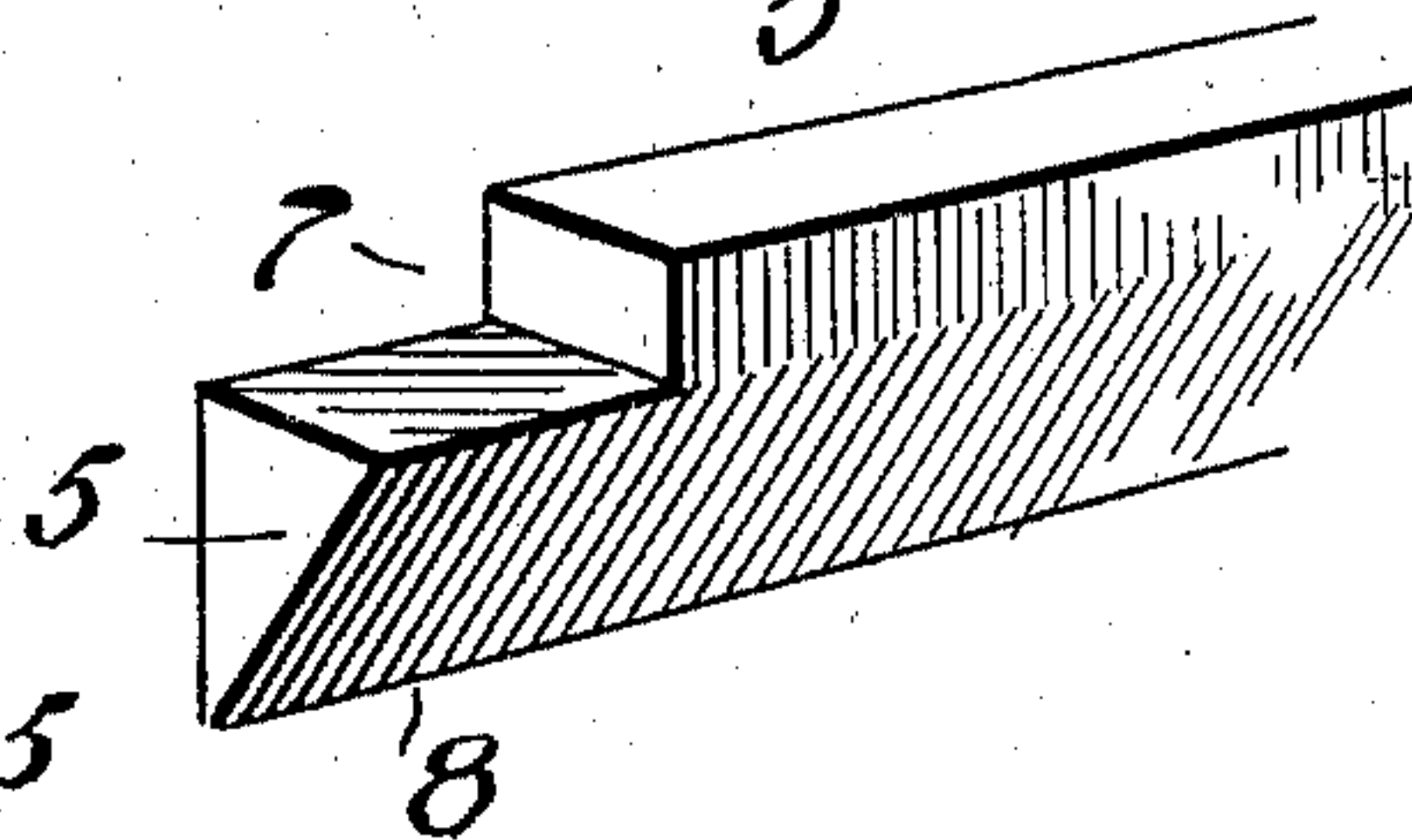


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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GOLD-SAVING RIFFLE.

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To all whom it may concern:

Be it known that I, CARL ERICKSON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Gold-Saving Riffles, of which the following is a specification.

This invention is an improved gold saving riffle for use in boxes or flumes in mining operations and consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a longitudinal sectional view of a section of a box or flume provided with a section of a riffle constructed in accordance with my invention. Fig. 2 is a plan of the same, a portion of the screen being removed to disclose the riffle. Fig. 3 is an end elevation of the same. Fig. 4 is a detail perspective of one of the side bars of the screen supporting frame.

The flume or box 1 may be of any suitable size and construction and may be made in separable sections if preferable, or in a continuous piece as may be desired. One section of the box or flume is here shown for the purposes of this specification. In the bottom of the box or flume is my improved riffle 2 which is ordinarily made of a wooden board of suitable dimensions, but may be made of any other suitable material and is provided with a series of pockets 3 which are bores extending through the riffle board or body from its upper to its lower side and inclining rearwardly as shown. These bores or pockets are in staggered relation and the bottoms thereof are formed by the bottom of the box or flume, their upper sides being open. In practice, the riffles are made in sections of suitable length, which sections are removable from the box or flume at will.

On the riffle, in accordance with my invention, is placed a frame 4 which is here shown as comprising a pair of side bars 5 and cross bars 6 which connect the side bars together and are rabbitted in the upper sides of the side bars at the ends of the latter, one of the rebates for the reception of the ends of the cross bars being indicated at 7 in Fig. 4. The said side bars are beveled on their inner sides so that their opposing surfaces diverge downwardly and the said side bars of the frame present narrow lower edges 8 which bear upon the riffle and hence

obstruct the latter to the minimum extent and expose all of the pockets or openings in the riffle. On the frame 4 is a screen 9 which prevents large particles from passing through and getting upon the riffle, the said screen being spaced from and above the riffle by the frame 4. The screen comprises longitudinal bars 10 and spacers 11 which dispose them at suitable regular distances apart. The frame, as well as the riffles and the screens are preferably made in separable sections and each section of the screen is hinged at its upper end to the upper end of the frame section on which it rests as at 12. Hooks 13 and screw eyes 14 are here shown to secure the lower end of the screen on the frame or any other suitable securing means may be employed within the scope of my invention. It will be understood that the screen being thus hinged on the frame may be readily opened therefrom and that the screen and frame may be removed from above the riffle to permit the latter to be readily taken out of the box or trough.

In practice, the box or trough together with the riffle, frame and screen are inclined somewhat as indicated in Fig. 1 to cause the water to flow downwardly through the box or trough and over the screen and riffle. Owing to the downward inclination of the holes or pockets of the riffle, the said holes or pockets enable the lighter worthless particles to readily pass over the same while they serve efficiently for the reception and retention of the heavier gold particles which settle in the riffle openings or pockets in the usual well known manner, the current of water flowing over the riffle serving to wash away the worthless particles of earth and rock and permitting the heavier gold particles to accumulate in the openings or pockets of the riffle. By removing the riffle from the bottom of the box or trough, the gold may be readily recovered as will be understood, since the pockets or openings in the riffle become bottomless as soon as the riffle is raised and hence the contents thereof drop in the bottom of the trough or box. The screen being hinged is movable readily from above the riffle to permit access thereto.

What is claimed is:—

The herein described gold saving apparatus comprising an inclined trough, a riffle on the bottom thereof comprising a body having rearwardly inclined openings extending from its upper to its lower side, the

bottoms of said openings being formed by
the bottom of the box or trough, a frame in
the trough and removable therefrom, said
frame embodying side bars and upper and
5 lower cross bars, said side bars presenting
downwardly diverging opposing surfaces
and formed with narrowed lower edges
which bear directly on the sides of the riffle
and expose the openings therein, and a
10 screen on said frame and spaced thereby
above the riffle, said screen being hinged to

the upper cross bar of the frame and com-
prising longitudinally disposed bars and
spacers disposing them at suitable regular
distances apart, and means for securing said 15
screen to the lower cross bar of the frame.

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

CARL ERICKSON.

Witnesses:

JULIUS CALMANN,
HENRY LOVERICH.