

(No Model.)

2 Sheets—Sheet 1.

W. HOLMES.

SIEVE.

No. 339,056.

Patented Mar. 30, 1886.

Fig. 1.

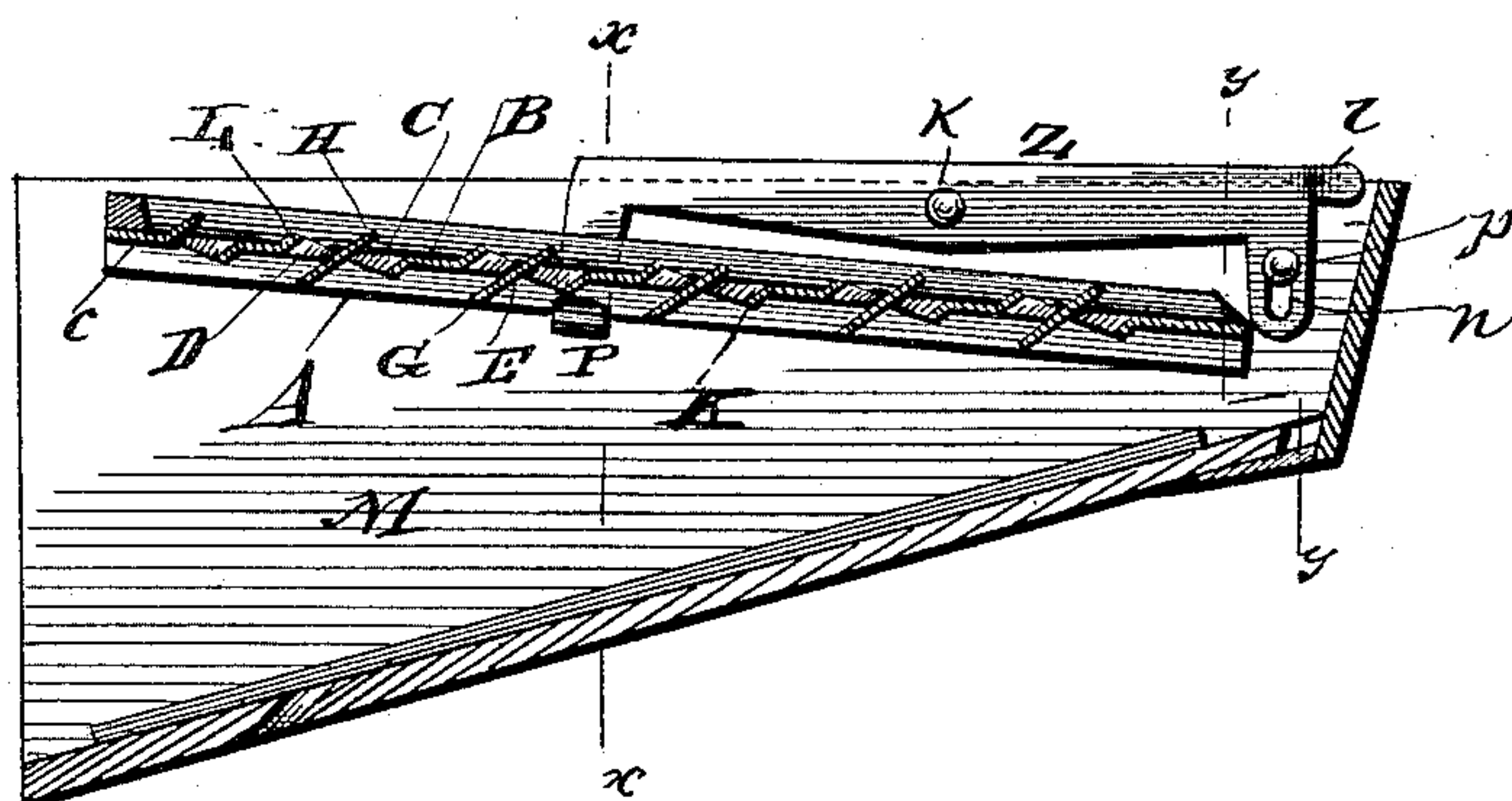


Fig. 2.

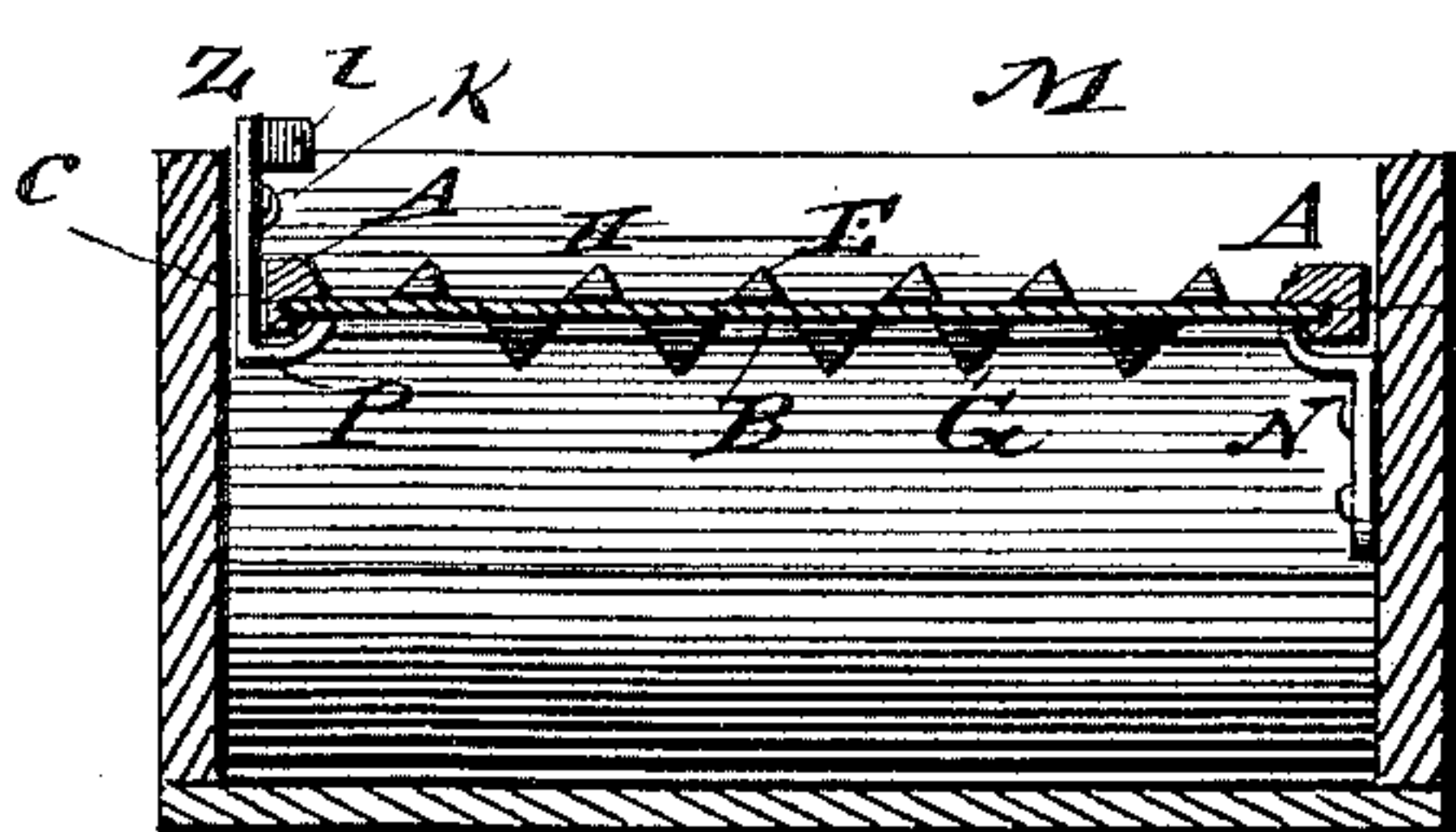


Fig. 3.

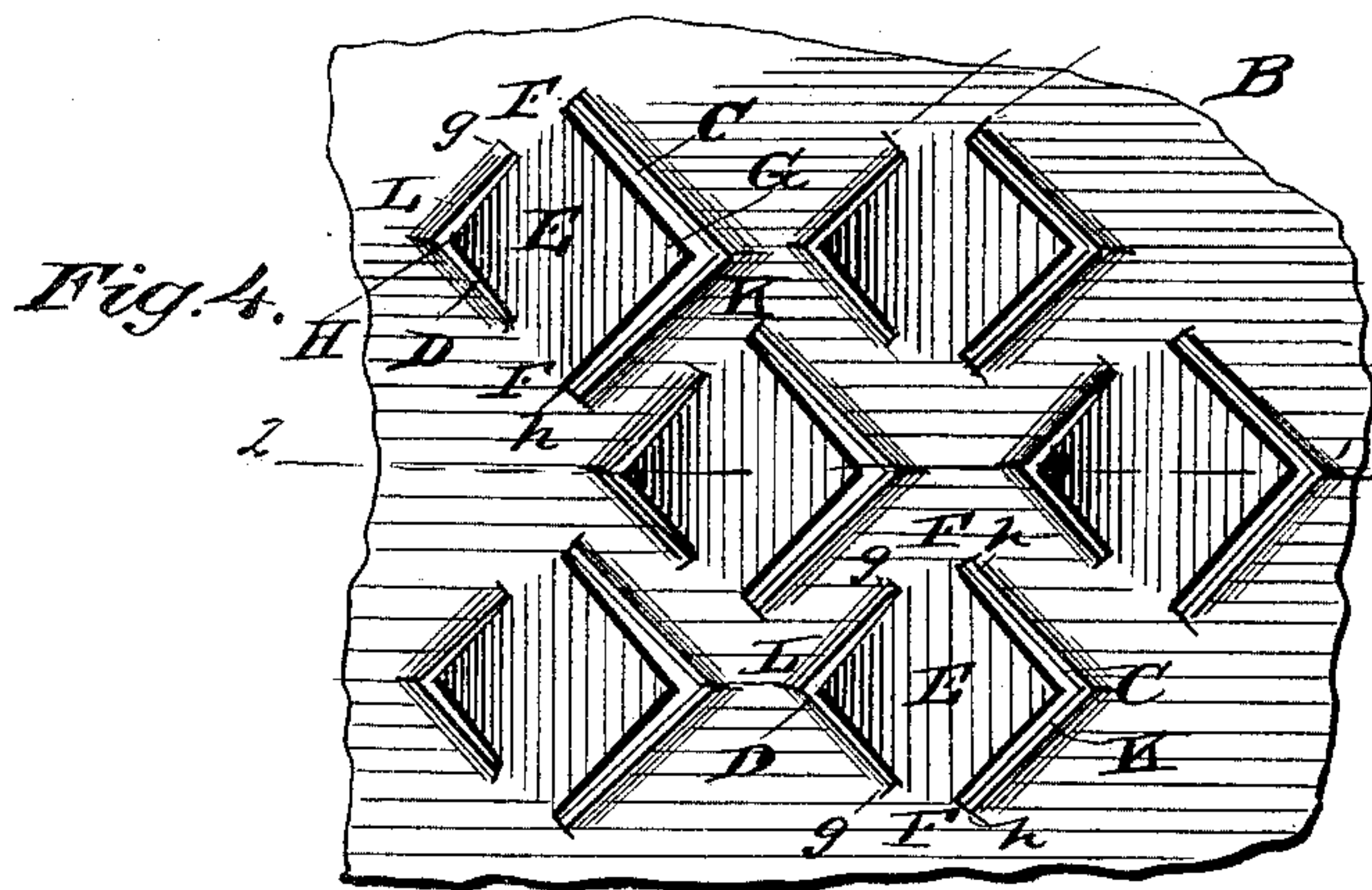
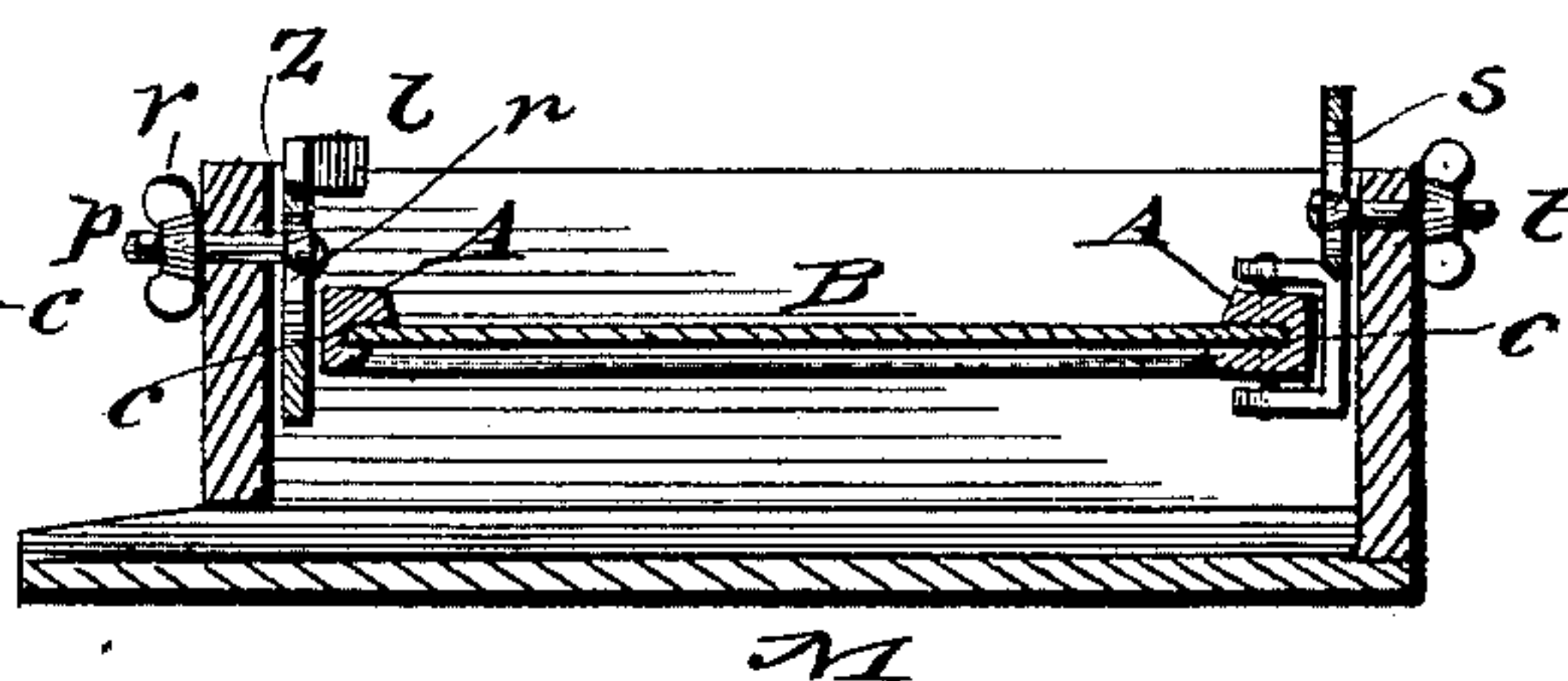


Fig. 6.

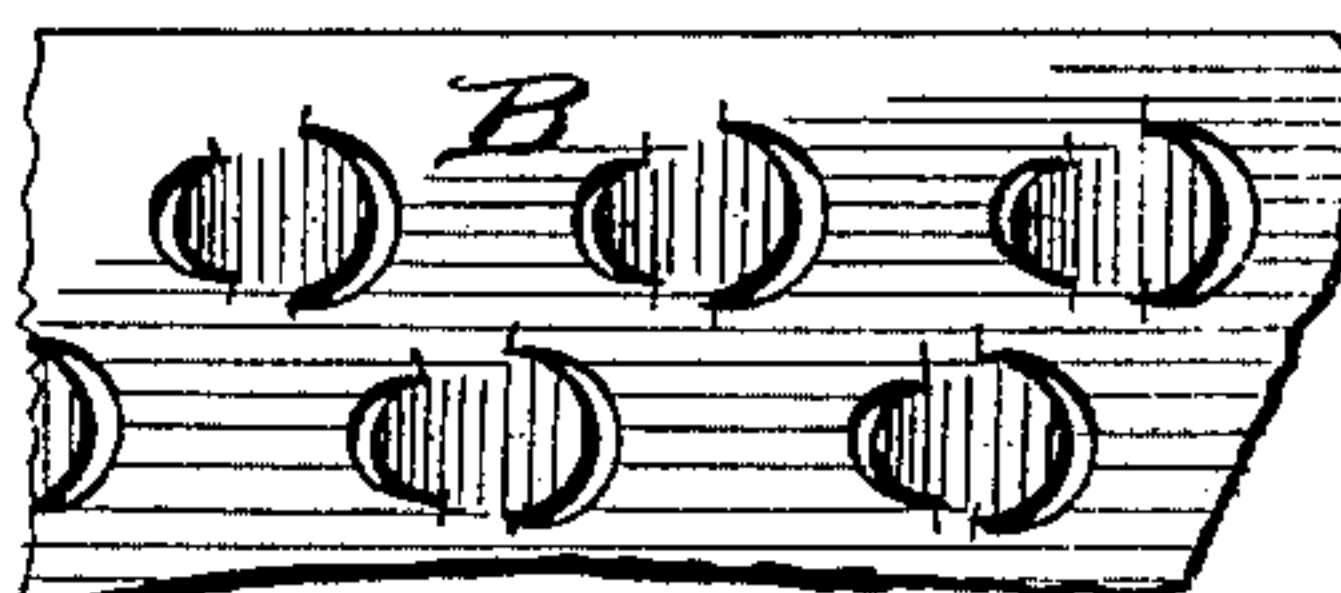


Fig. 7.

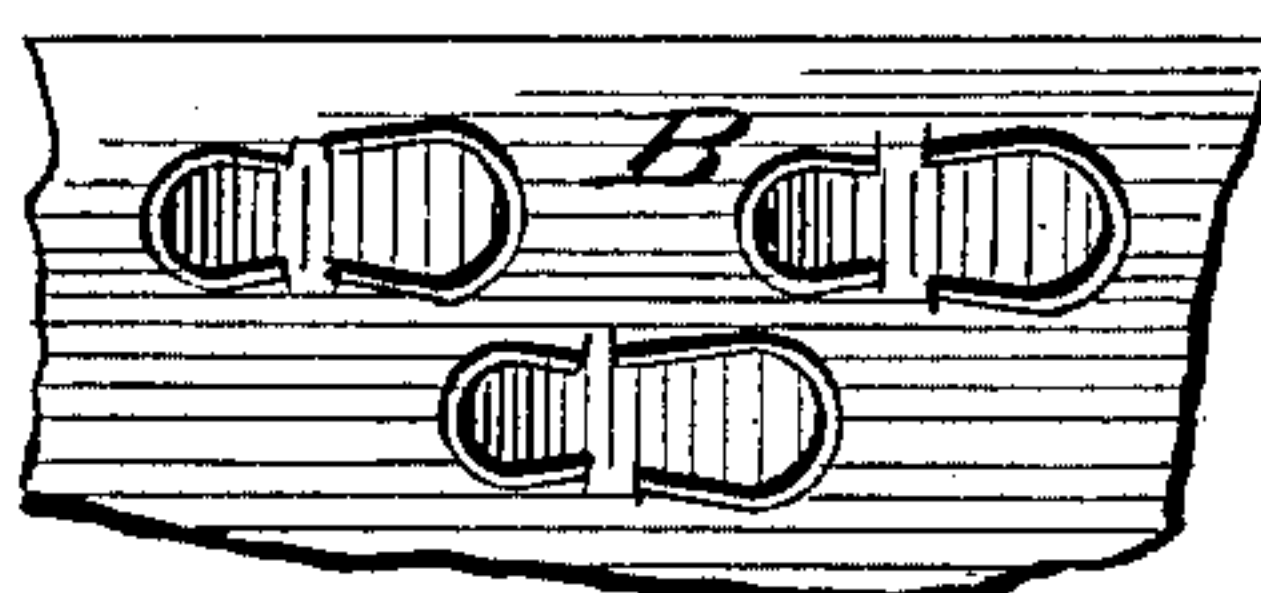
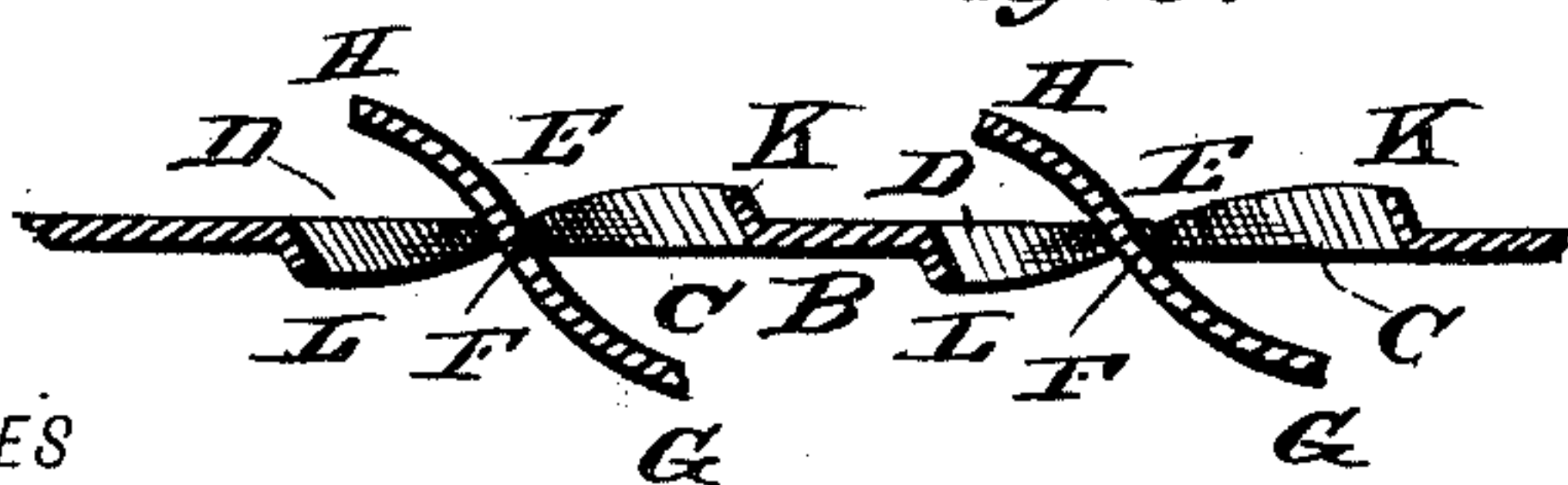


Fig. 5.



WITNESSES

Phil. Masi.
B. Fugitt.

INVENTOR

Wm. Holmes.

By his Attorneys,

Auderson Smith.

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2 Sheets—Sheet 2.

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Fig. 8.

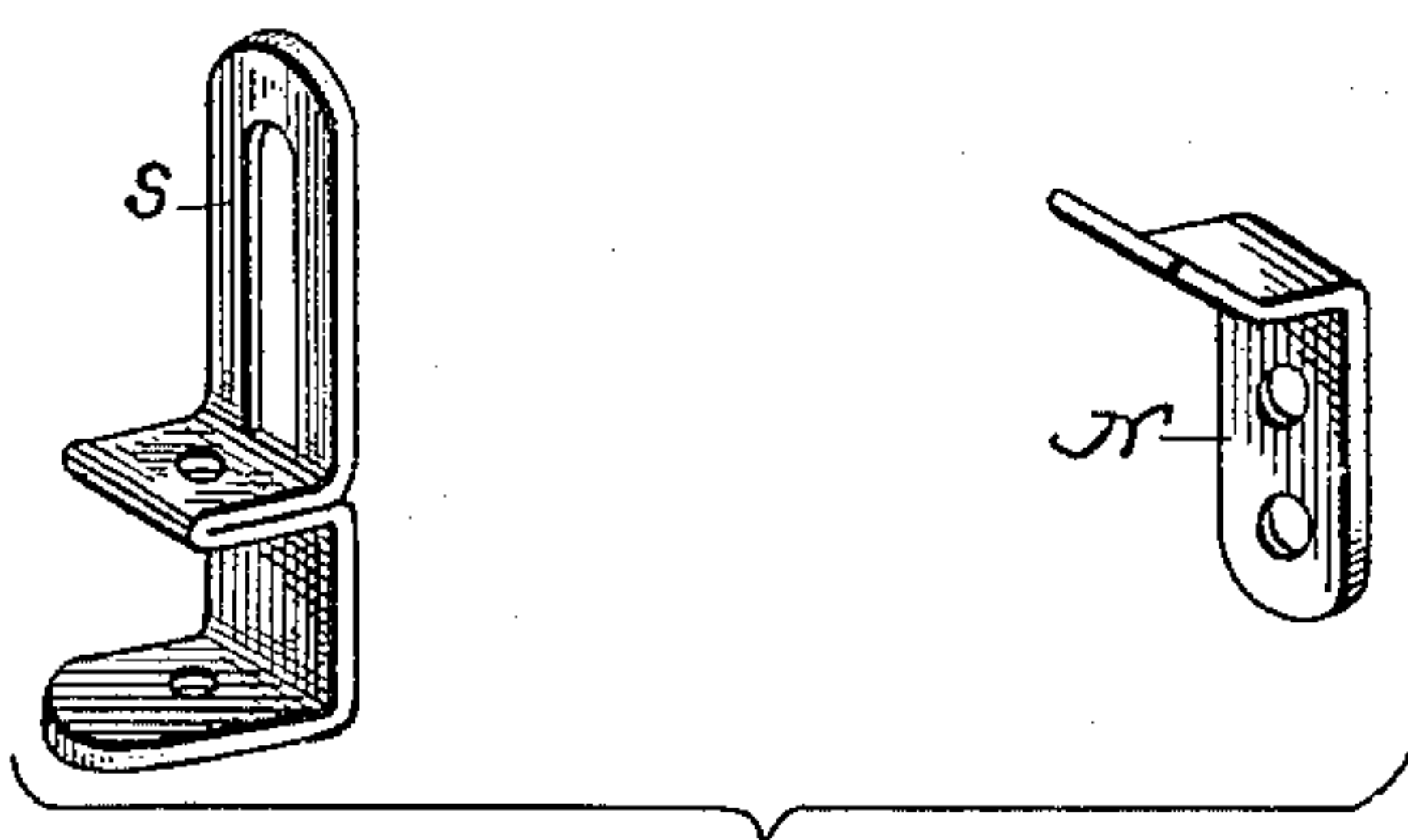
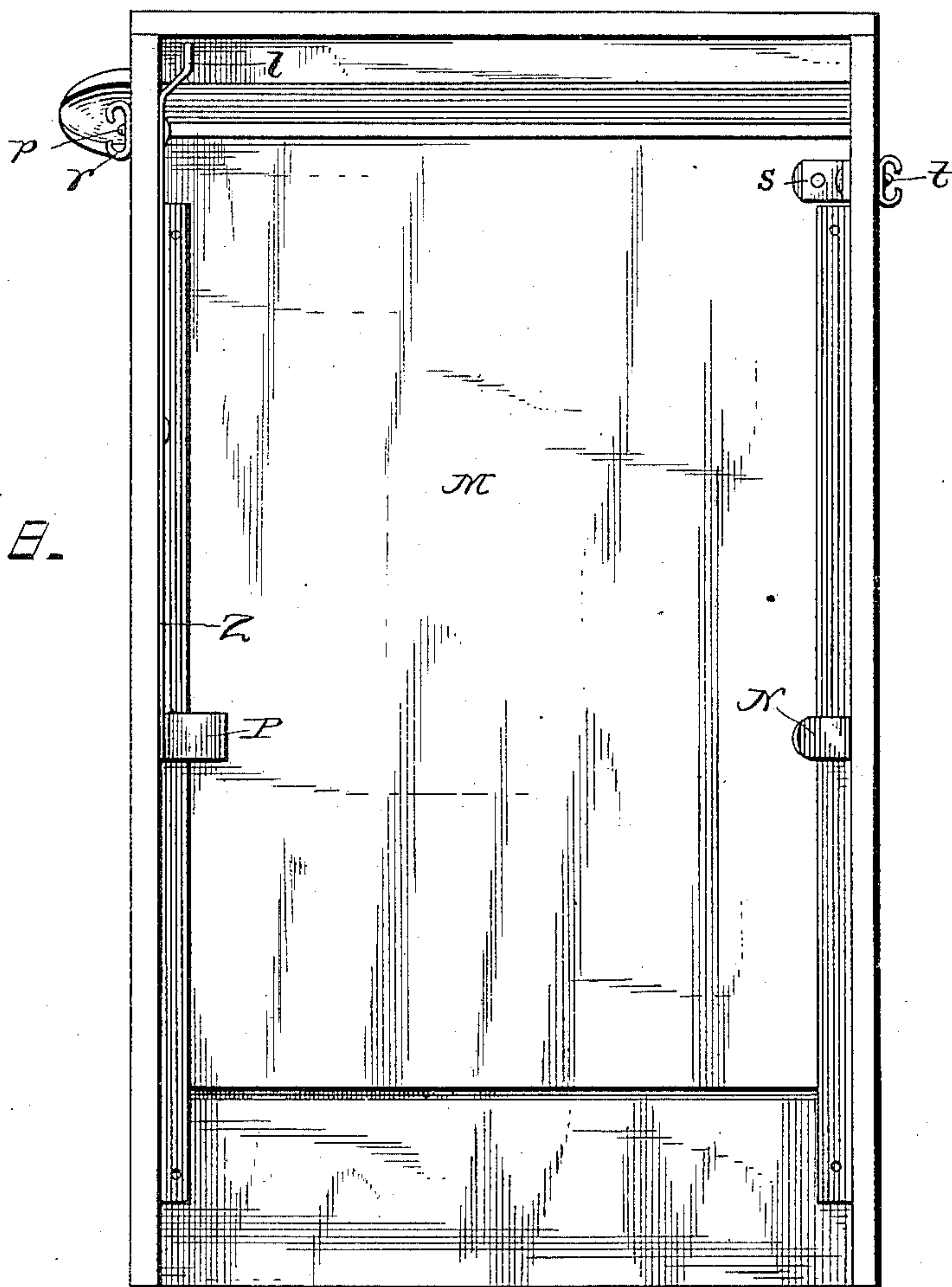


Fig. 9.

WITNESSES

B. Fugitt.
Philip C. Massi.

INVENTOR

Wm. Holmes.
by Anderson Smith
his ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM HOLMES, OF WEST SALEM, OHIO.

SIEVE.

SPECIFICATION forming part of Letters Patent No. 339,056, dated March 30, 1886.

Application filed November 17, 1885. Serial No. 183,108. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HOLMES, a citizen of the United States, residing at West Salem, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Sieves; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a shoe with the sieve hung therein, being in vertical section. Fig. 2 is a transverse section of the same on line *x x*, Fig. 1. Fig. 3 is a similar section taken on line *y y*, Fig. 1. Fig. 4 is an enlarged plan view of a portion of the sieve in detail. Fig. 5 is a vertical section of the same. Figs. 6 and 7 represent modified forms of the sieve in detail. Fig. 8 is a plan view of the shoe with the sieve removed. Fig. 9 is a perspective view of the adjustable brackets.

This invention has relation to grain-sieves; and it consists in the construction and novel combination of parts, all as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, the letter A designates the frame of the sieve, and B the sieve, which is formed of sheet metal and set in said frame by sliding it into the same endwise, grooves *c* being formed in the side of the frame to receive the edges of the sieve. In this manner it is designed to provide means for reversing the sieve in the frame. When desirable, however, it may be permanently secured to its frame.

The openings in the sheet-metal sieve are of two sizes, but similar in form. The size of the larger angular cuts is about double that of the smaller angular cuts, as indicated, respectively, at C and D.

In forming the sieve the large angular cuts C are all directed toward one end of the sieve, while the angles of the small cuts are directed toward the opposite end thereof. Opposite each large cut or opening C is a small cut or opening, D, and between the cuts is the square E or double tongue, which is connected by the

uncut portions F between the ends *g* of the small cut and the ends *h* of the large cut. The general plane of the square E is oblique to that of the general plane of the sieve, the large tongue G being bent downward and the small tongue H upward, in the position shown in the drawings. In punching these angular openings the re-entrants K and L are also bent, but in opposite direction to the tongues, respectively, so that they form guards, as shown, to prevent the passage of the grain except in certain directions through the sieve. When the sieve is in the position shown—that is to say, with the large tongues downward—it may be used for cleaning wheat, and the large tongues will catch and regulate the wind passing through the openings of the large cuttings.

For separating finer seed—such as timothy, cockle, and chaff—from larger grain, the sieve is made with cuts of smaller form, and the tongue-squares are slanted in a less degree, so that the openings are not so large. Thus, when the grain is placed in a mixed state upon the sieve, the smaller grain will fall through the openings therein, while the large grain will pass down to the discharge end of the sieve.

M represents the shoe in which the sieve is hung. On one side of the shoe, and about midway of its length, is provided the fixed hanger N, on which one side of the sieve rests, the other side resting on the bearing P of the adjusting or leveling lever Z, which is pivoted to the wall of the said shoe. This lever is formed with a locking device, preferably a slot, *n*, formed in an offset thereof, and adapted to engage the head of a bolt, *p*, which, when the adjustment is effected, can be drawn tight by the nut *r*. On the opposite side of the sieve, and near one end thereof, a slotted hanger, *s*, is provided, which is connected to the wall of the shoe, and is secured in position after adjustment by means of a bolt, *t*. This mechanism enables the operator to level the sieve readily and quickly—an important matter in the operation of the sieve, because if it is not level its tongues and guards will not work properly with relation to the openings.

The angular cuttings may be made rounded at the point portions of the tongues, and sometimes the cuttings may be semicircular, or nearly so; but the angular form is preferred.

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

- 5 1. The sheet-metal sieve having the large and small opposed rectangular cuts, forming openings, the intermediate slanted double tongues connected at the sides, and the bent margins of the re-entrants forming guards, substantially as specified.
- 10 2. The reversible sheet-metal sieve having its passage formed by large and small rectangular cuts opposed to each other, and tongues formed by the rectangular intermediate pieces connected at the sides, and marginal guards
- 15 3. The combination, with a shoe and a sieve, of the slotted hanger-lever pivoted to said shoe on one side and having a bolt-and-nut fastening, the opposite stationary hanger connected to the middle portion of the sieve-frame, and the slotted hanger, also arranged on the opposite side of the sieve-frame from the lever-hanger, substantially as specified.

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

WILLIAM HOLMES.

Witnesses:

SHERMAN DRUSHAL,
RICHMOND E. MALLORY.