

No. 668,737.

Patented Feb. 26, 1901.

H. LOYD.

SIEVE FOR THRESHING MACHINES.

(Application filed Mar. 26, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

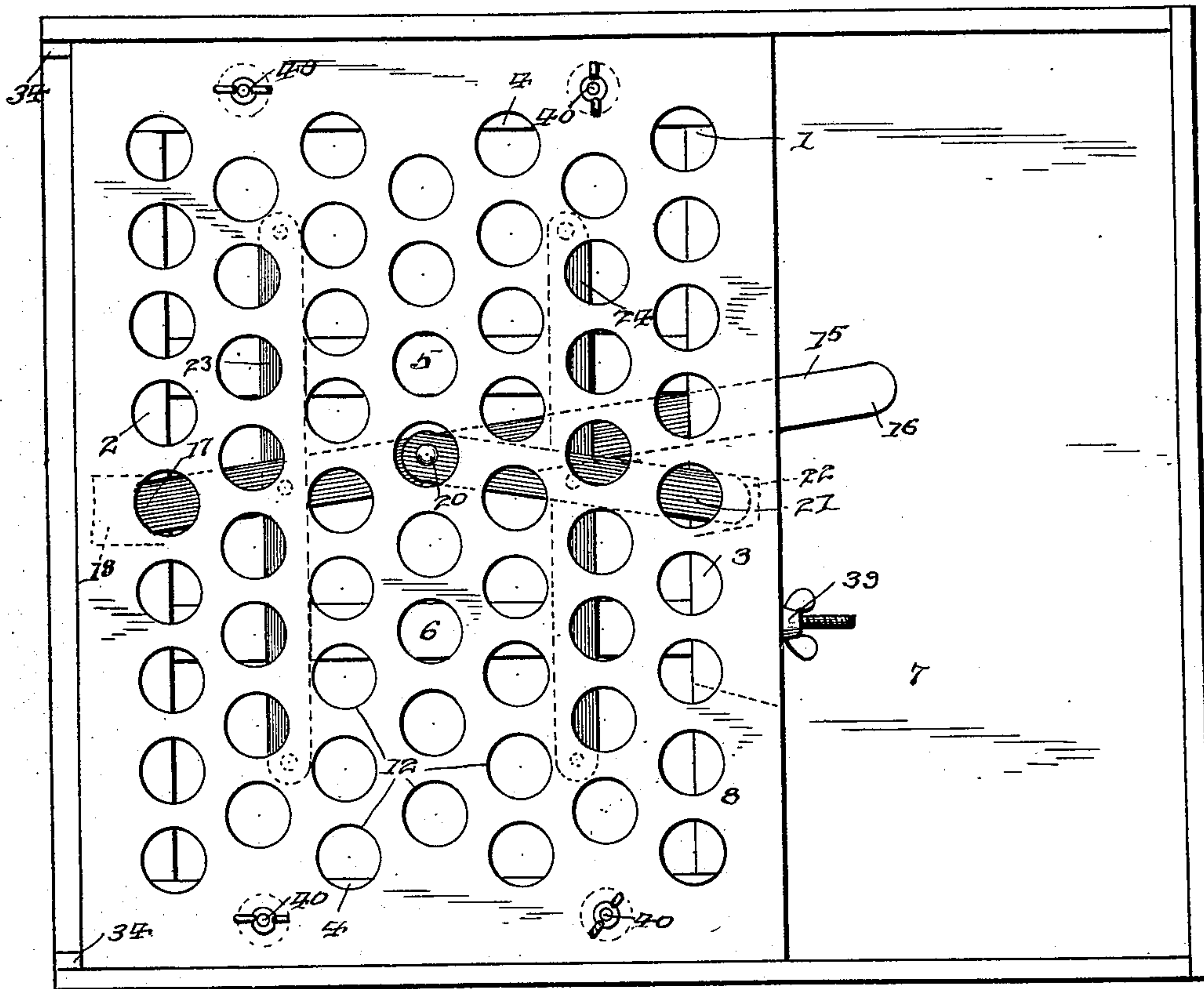
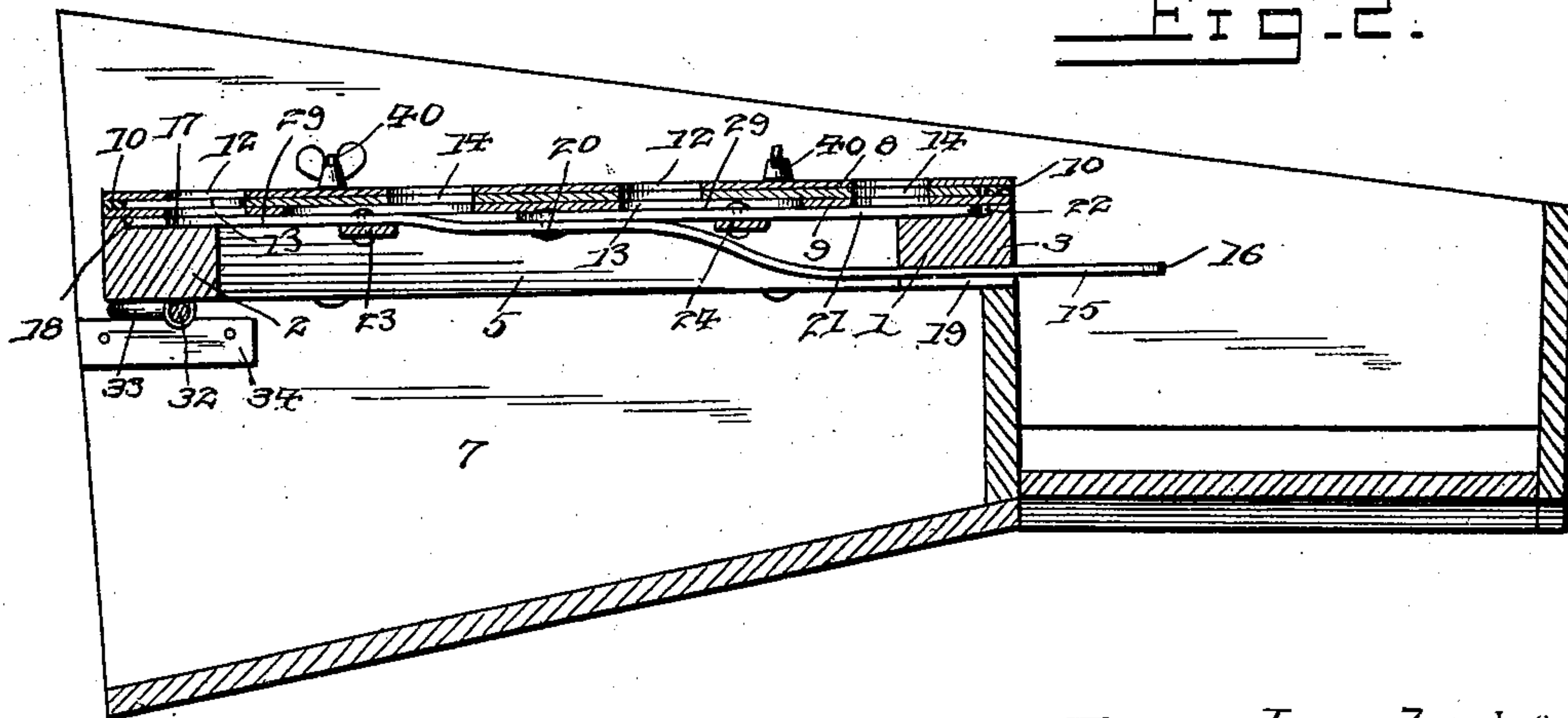


Fig. 2.



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2 Sheets—Sheet 2.

Fig. 3.

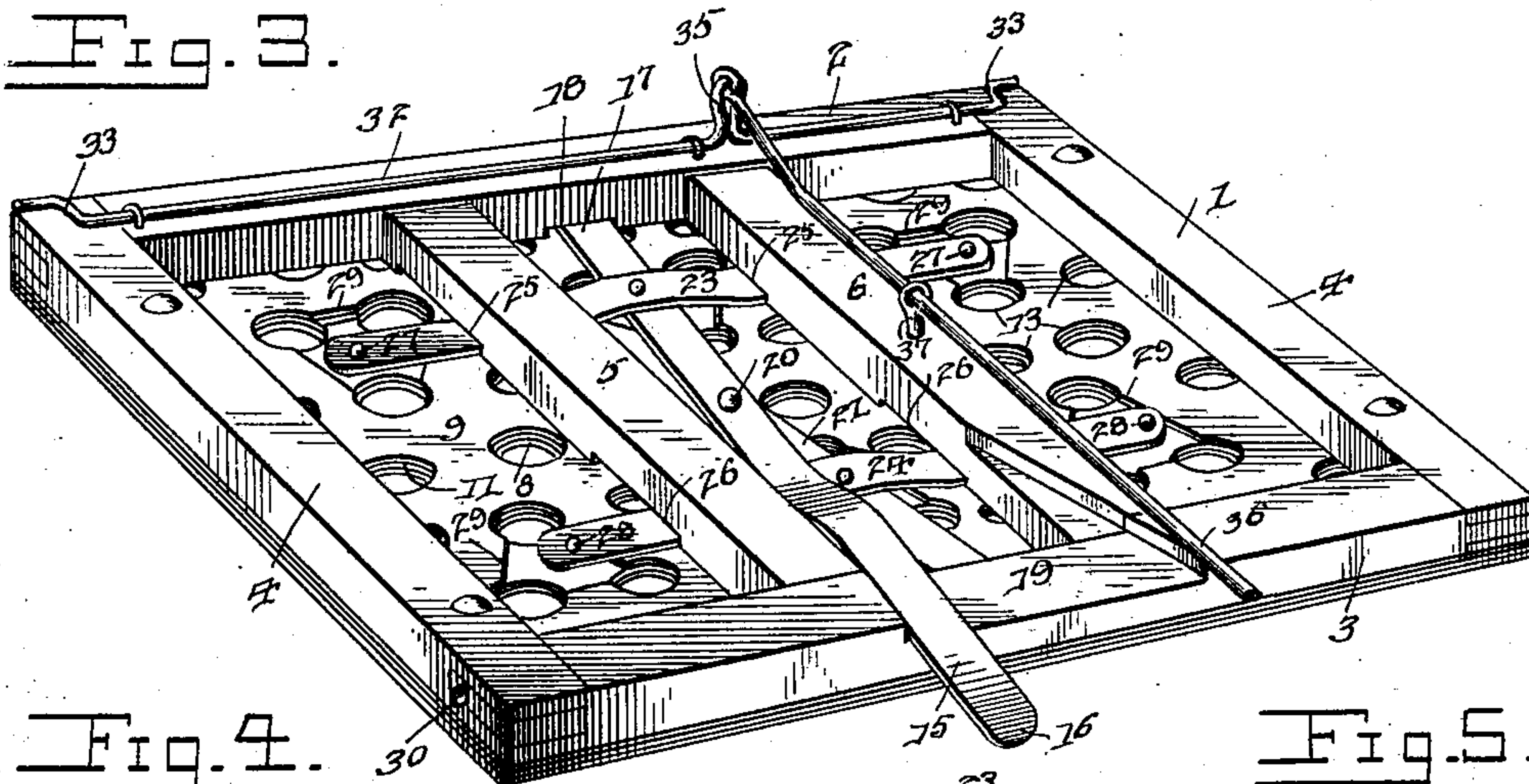


Fig. 4.

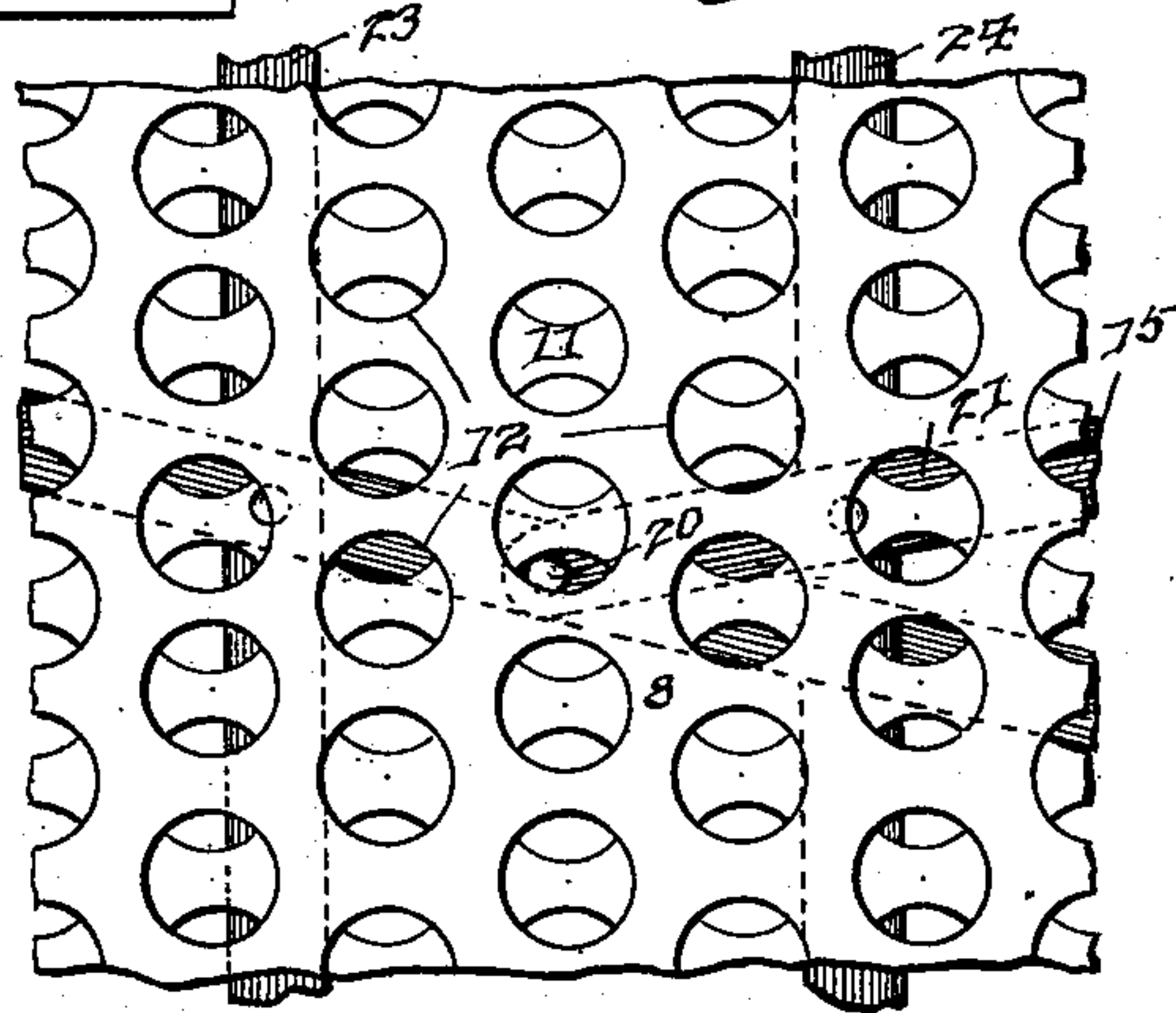


Fig. 5.

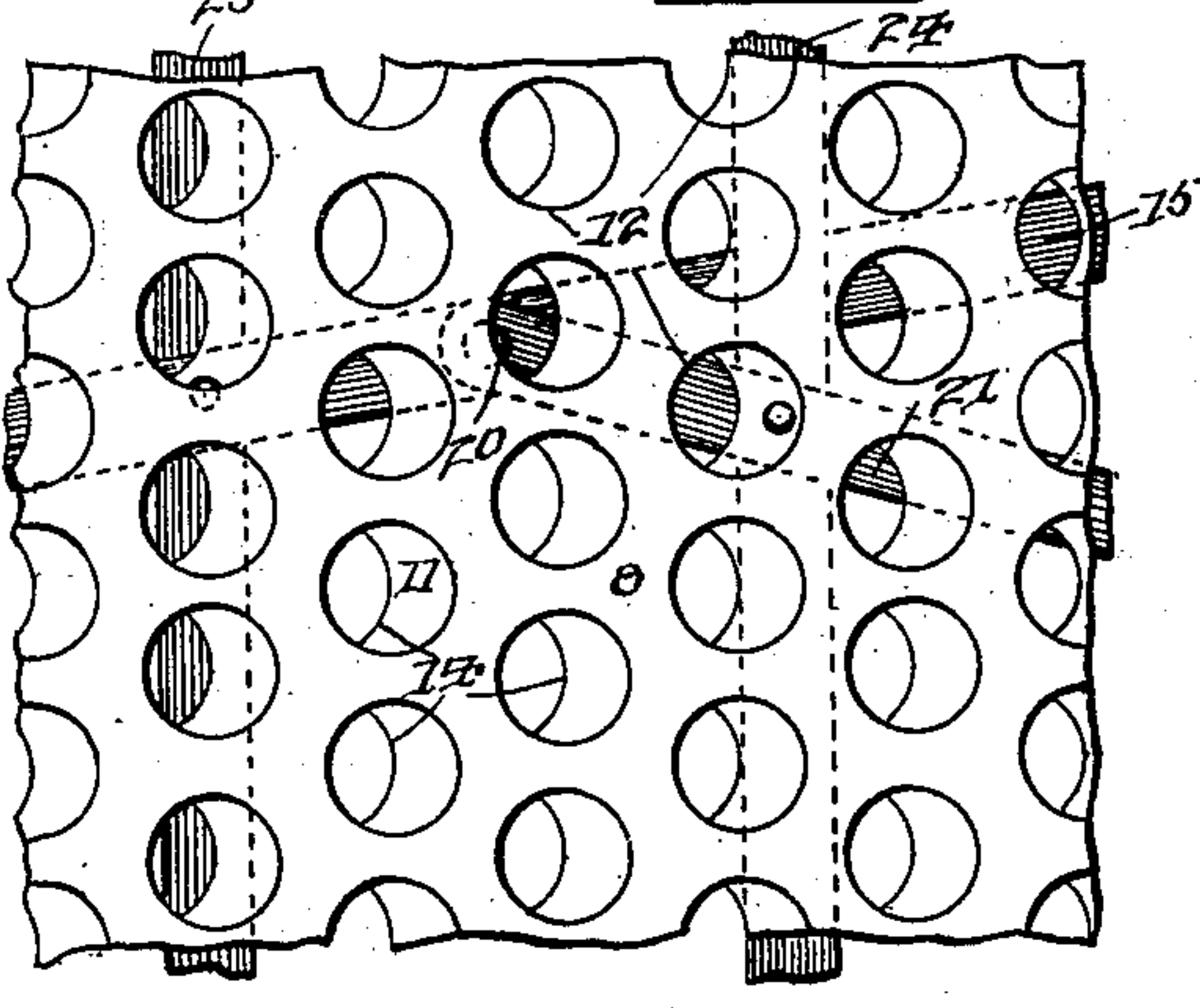


Fig. 6.

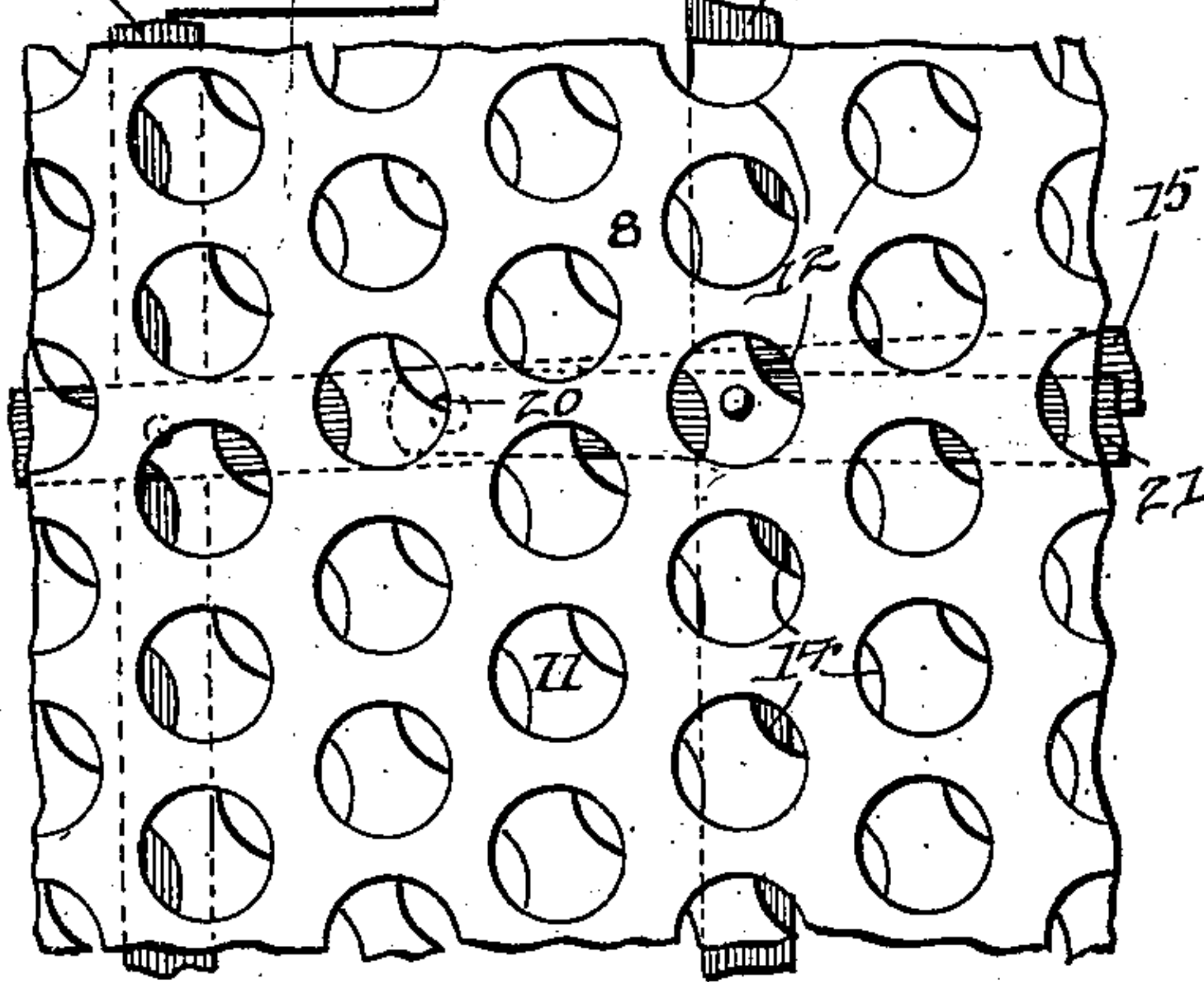
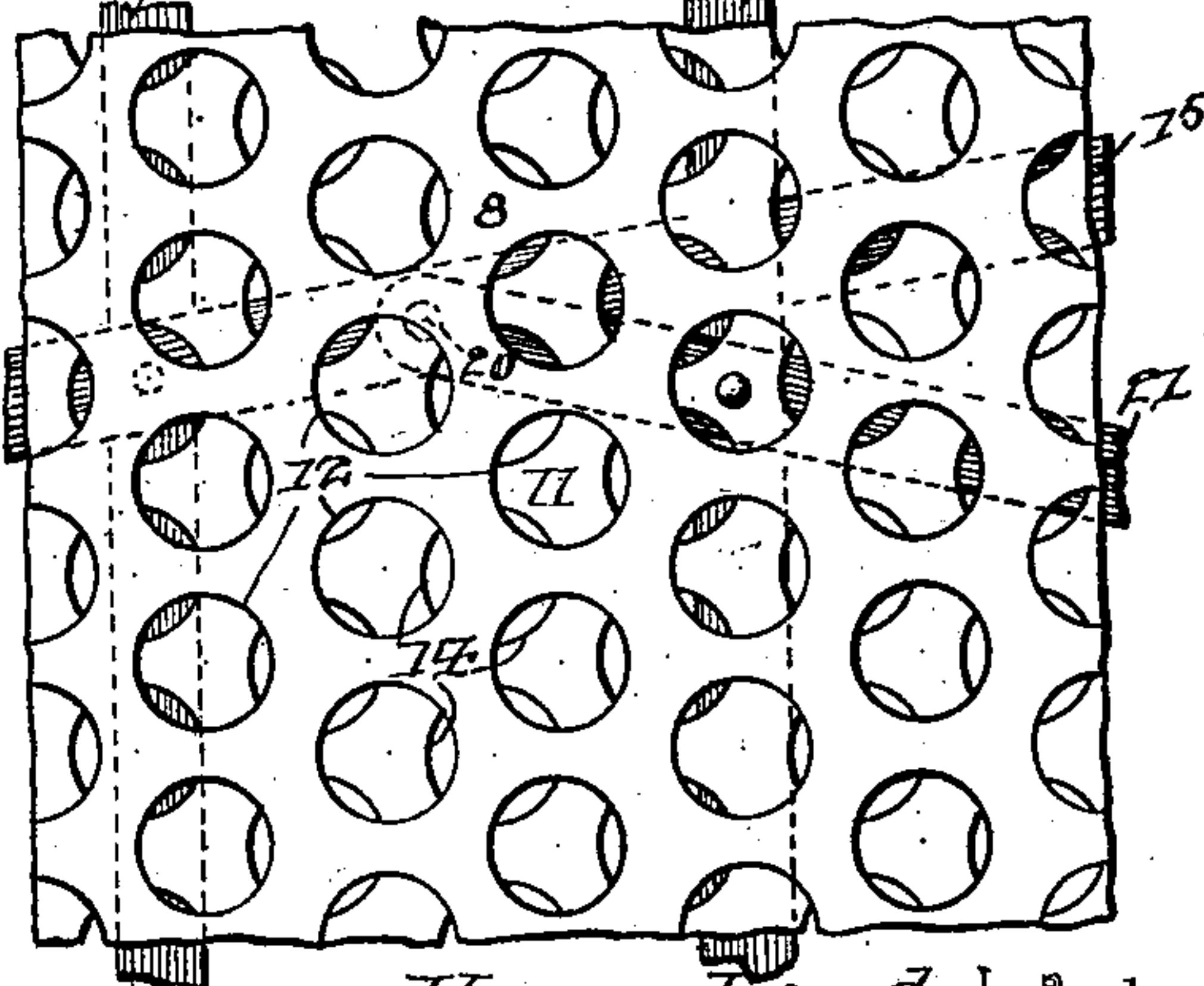


Fig. 7.



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UNITED STATES PATENT OFFICE.

HENRY LOYD, OF DANA, KANSAS.

SIEVE FOR THRESHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 668,737, dated February 26, 1901.

Application filed March 26, 1900. Serial No. 10,269. (No model.)

To all whom it may concern:

Be it known that I, HENRY LOYD, a citizen of the United States, residing at Dana, in the county of Phillips and State of Kansas, have
5 invented a new and useful Sieve for Threshing-Machines, of which the following is a specification.

The invention relates to improvements in sieves for threshing-machines.

10 The object of the present invention is to improve the construction of sieves for threshing-machines and the like and to provide a simple and comparatively inexpensive one which will be capable of ready adjustment to
15 vary the size of the openings to adapt it for operating on various kinds of grain.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated
20 in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a plan view of a sieve constructed in accordance with this invention. Fig. 2 is a vertical sectional view
25 of the same. Fig. 3 is a perspective view of the sieve, the same being inverted to illustrate the operating mechanism more clearly. Figs. 4 to 7, inclusive, illustrate the different arrangements or adjustments of the sieve.

30 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a rectangular frame of any desired size composed of side bars 2 and 3 and
35 end bars 4 and supported by intermediate cross-bars 5 and 6, preferably located equidistant of the ends of the rectangular frame, as illustrated in Fig. 3 of the accompanying drawings. The rectangular frame is mounted
40 within a suitable supporting-frame 7, forming a part of the threshing-machine or other machine in which the sieve is employed, and the said rectangular frame supports and has secured to the side and end bars, at the upper
45 faces thereof, upper and lower screens 8 and 9, spaced apart at their edges by suitable strips 10 to form a space for the reception of an intermediate adjustable screen 11, which is guided in its movements by the upper and
50 lower screens 8 and 9. The upper and lower screens 8 and 9 are provided with circular openings 12 and 13, and the intermediate

screen 11 is provided with corresponding circular openings 14, adapted to register to a greater or less degree with the registering
55 openings of the upper and lower screens, whereby openings of different sizes are provided, and to effect this adjustment the intermediate screen is capable of both longitudinal and lateral movement. The openings
60 are shown completely registering in Figs. 1, 2, and 3 of the drawings, and the first adjustment, which is illustrated in Fig. 4, is obtained by moving the intermediate screen to the left from the position shown in Fig. 1.
65 The next adjustment is obtained by returning the intermediate screen to the position shown in Fig. 1 and moving it longitudinally of the machine to the position illustrated in Fig. 5, and the intermediate screen may then be
70 moved laterally to the left to arrange it in the position shown in Fig. 6 to provide openings of the same form as those shown in Fig. 4, but slightly smaller. The intermediate screen may then be moved to the right to arrange it
75 in the position illustrated in Fig. 7 of the drawings to provide three small openings.

The intermediate screen is moved longitudinally and transversely by means of a lever
80 15, extending across the sieve longitudinally of the machine and projecting from the side 3 of the frame, as clearly shown in Figs. 1, 2, and 3. Its projecting end forms a handle 16, and its other end 17 is arranged in a recess 18
85 of the side 2 of the rectangular frame. The handle portion of the lever is offset downwardly from the plane of the inner portion of the lever and is extended through a recess 19
90 of the side 3 of the frame, the said recess 19 forming the guide for and limiting the movement of the lever 15. The operating-lever 15 is connected at its center by a pivot 20 with a short longitudinal lever 21, which has its
95 outer end arranged in a recess 22, located diametrically opposite the recess 18 of the side 2 of the rectangular frame and formed in the side 3 thereof. The recesses 18 and 22, which receive the levers 15 and 21, confine them from lateral play and permit them to have longitudinal play only. The levers 15 and 21
100 are connected with the intermediate screen by transverse bars 23 and 24, located at opposite sides of the central pivot 20 and extending through recesses 25 and 26 of the

cross-bars 5 and 6. The ends of the connecting-bars 23 and 24 are secured by rivets 27 and 28 or other suitable fastening devices to the intermediate screen, and the lower screen 5 is cut away at 29, at the ends of the connecting-bars 23 and 24, to provide approximately triangular openings to permit the adjustment of the intermediate screen. The intermediate screen is adjusted in the several positions 10 heretofore described by oscillating the operating-lever and by moving the same longitudinally to carry the intermediate screen backward and forward from one side of the rectangular frame to the other, and the recesses 15 25 and 26 are of sufficient length to provide openings of the necessary size to permit the transverse adjustment of the intermediate screen.

The sieve is pivoted at opposite sides at 20 to the sides of the frame 7, and it is adjusted and moved upward and downward by means of a rock-shaft 32, provided at its ends with substantially L-shaped arms 33, which engage blocks 34 or other suitable supports of 25 the frame 7. The rock-shaft is provided with an intermediate arm 35, which is connected with an operating-rod 36, extending through a guide 37 and having its outer end 38 threaded for the reception of a thumb-nut 39. The 30 thumb-nut 39, which engages the side 3 of the rectangular frame, is capable of adjustment to vary the position of the rock-shaft. By partially rotating the rock-shaft the adjacent side of the sieve is raised and lowered, as will 35 be readily apparent. The guide 37 is mounted on the intermediate cross-bar 6, and the outer end of the operating-rod is located adjacent to the handle end of the operating-lever.

The intermediate screen is secured at any 40 desired adjustment by clamping devices 40, consisting of bolts and thumb-nuts and arranged adjacent to the corners of the sieve, as illustrated in Fig. 1 of the accompanying drawings. The thumb-nuts of the clamping 45 devices are loosened when it is desired to adjust the intermediate screen, and as the bolts pass through the upper and lower screens the clamping devices are adapted to bind the said upper and lower screens tightly against the 50 intermediate screen to prevent the latter from accidentally slipping. Instead of employing bolts and nuts for this purpose any other suitable form of clamping device may be used.

It will be seen that the sieve is exceedingly 55 simple and inexpensive in construction, that

it is capable of ready adjustment to provide openings of different sizes to adapt it for the character of grain to be operated on, and that the screen may be readily adjusted bodily.

What is claimed is—

1. In a device of the class described, the combination of a frame, fixed and movable screens, a pair of parallel bars disposed transversely of the screens and connected at their ends with the movable screen, and a pair of 65 longitudinal levers pivoted between their ends to the transverse bars and connected together at a point between the same, each of said levers having one end fulcrumed on the frame and capable of a limited longitudinal 70 movement and confined from lateral play, and one of the levers being extended beyond the frame, substantially as described.

2. In a device of the class described, the combination of a frame, upper and lower 75 screens supported by the frame and spaced apart, an intermediate screen arranged between the upper and lower screens and capable of longitudinal and lateral adjustment, the longitudinal operating-lever extending 80 across the frame and having one end loosely arranged thereon but confined from lateral play, a longitudinal lever pivoted at its inner end to the operating-lever and having its outer end loosely arranged on the frame, said 85 levers being capable of longitudinal reciprocation and transverse oscillation, and means for connecting the levers with the intermediate screen, substantially as described.

3. In a device of the class described, the combination of a frame provided at opposite 90 sides with recesses and having intermediate cross-bars, the operating-lever extending across the frame and having one end arranged to have longitudinal play in one of the said recesses and confined from lateral play, a short 95 lever pivoted at its inner end to the operating-lever and having its outer end arranged in the other recess to have longitudinal play only, the fixed and movable screens, and the connecting-bars extending through the cross-bars 100 and secured to the levers and to the movable screen, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 105 the presence of two witnesses.

HENRY LOYD.

Witnesses:

J. L. CALES,
H. O. HOOVER.