

No. 773,944.

PATENTED NOV. 1, 1904.

K. H. KNUDSVIG.
ADJUSTABLE MESH SIEVE.
APPLICATION FILED MAR. 21, 1904.

NO MODEL.

Fig. 1.

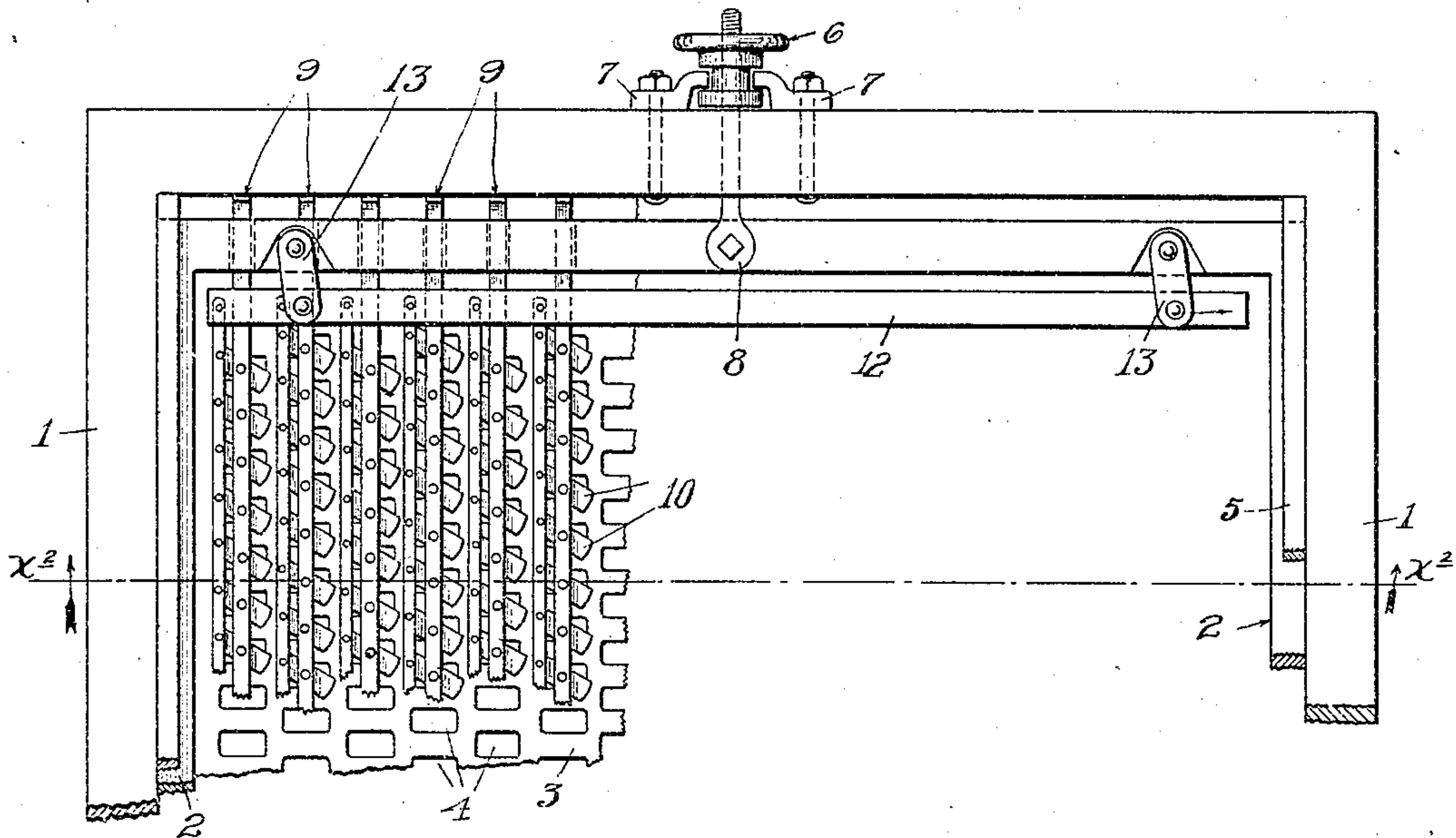


Fig. 2.

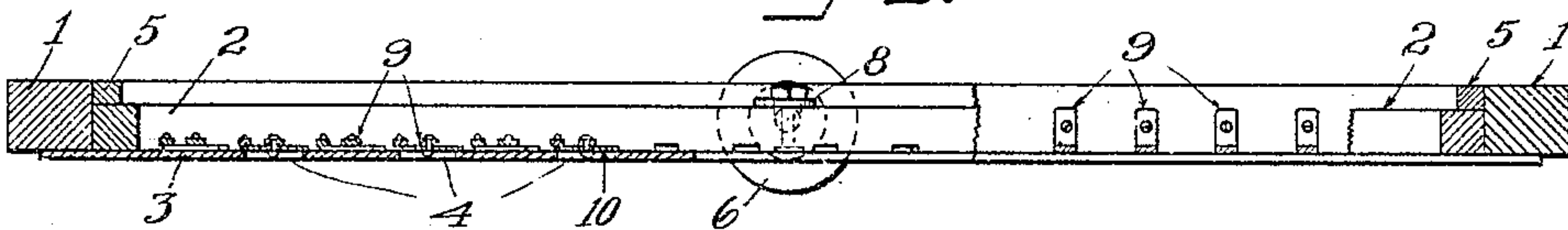


Fig. 3.

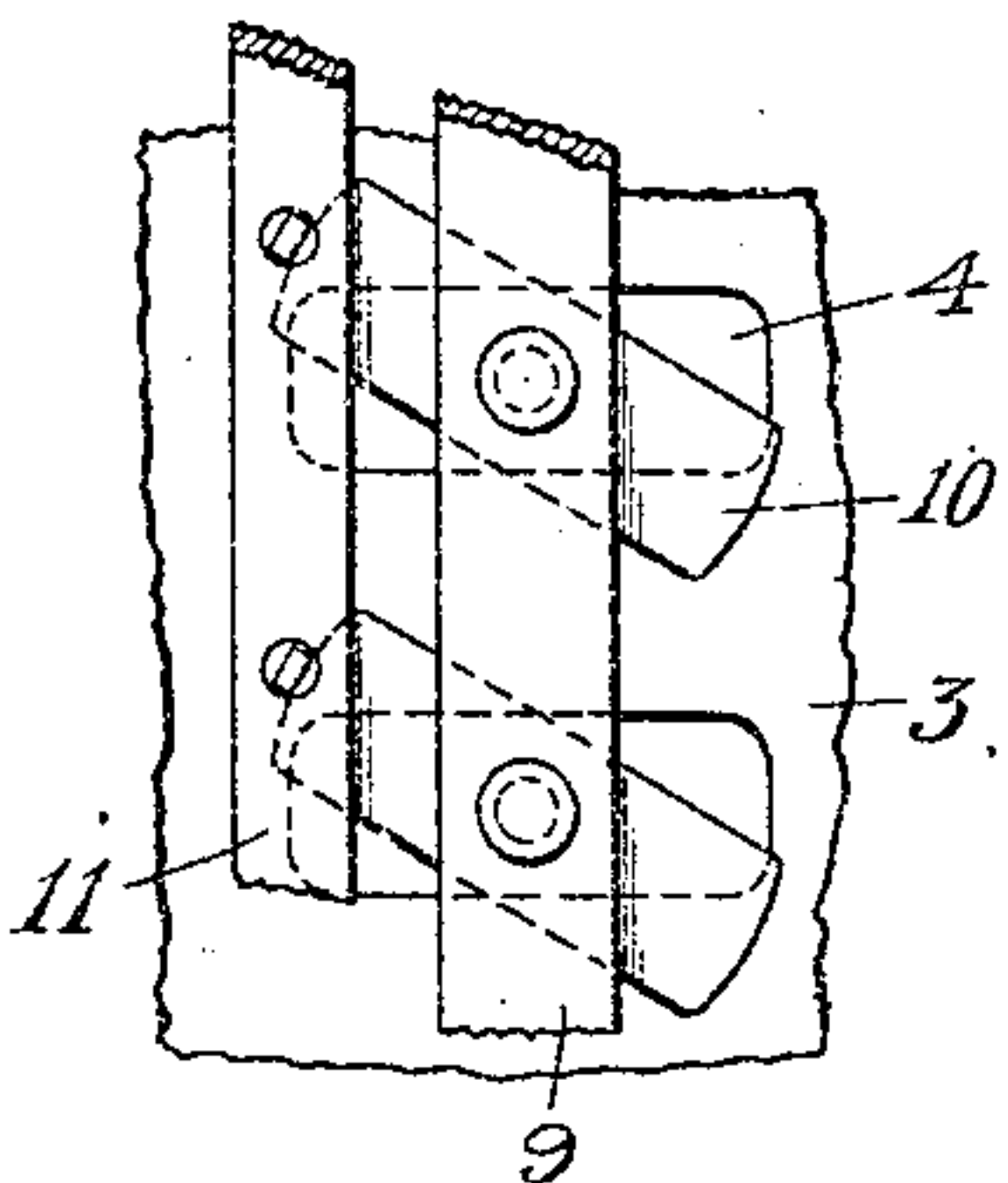


Fig. 5.

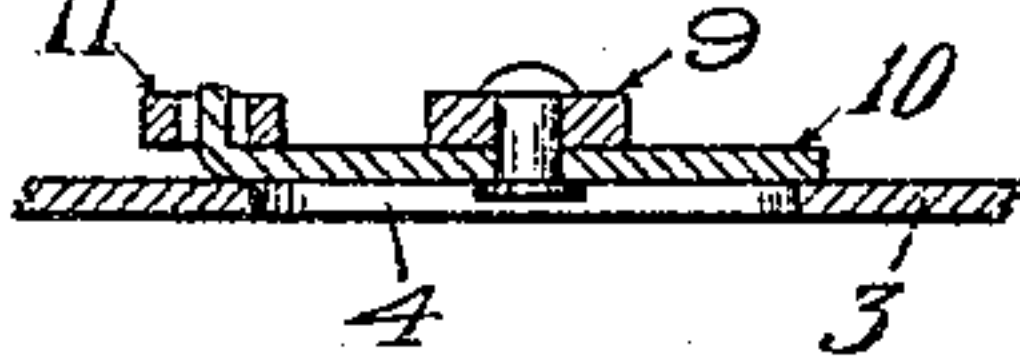
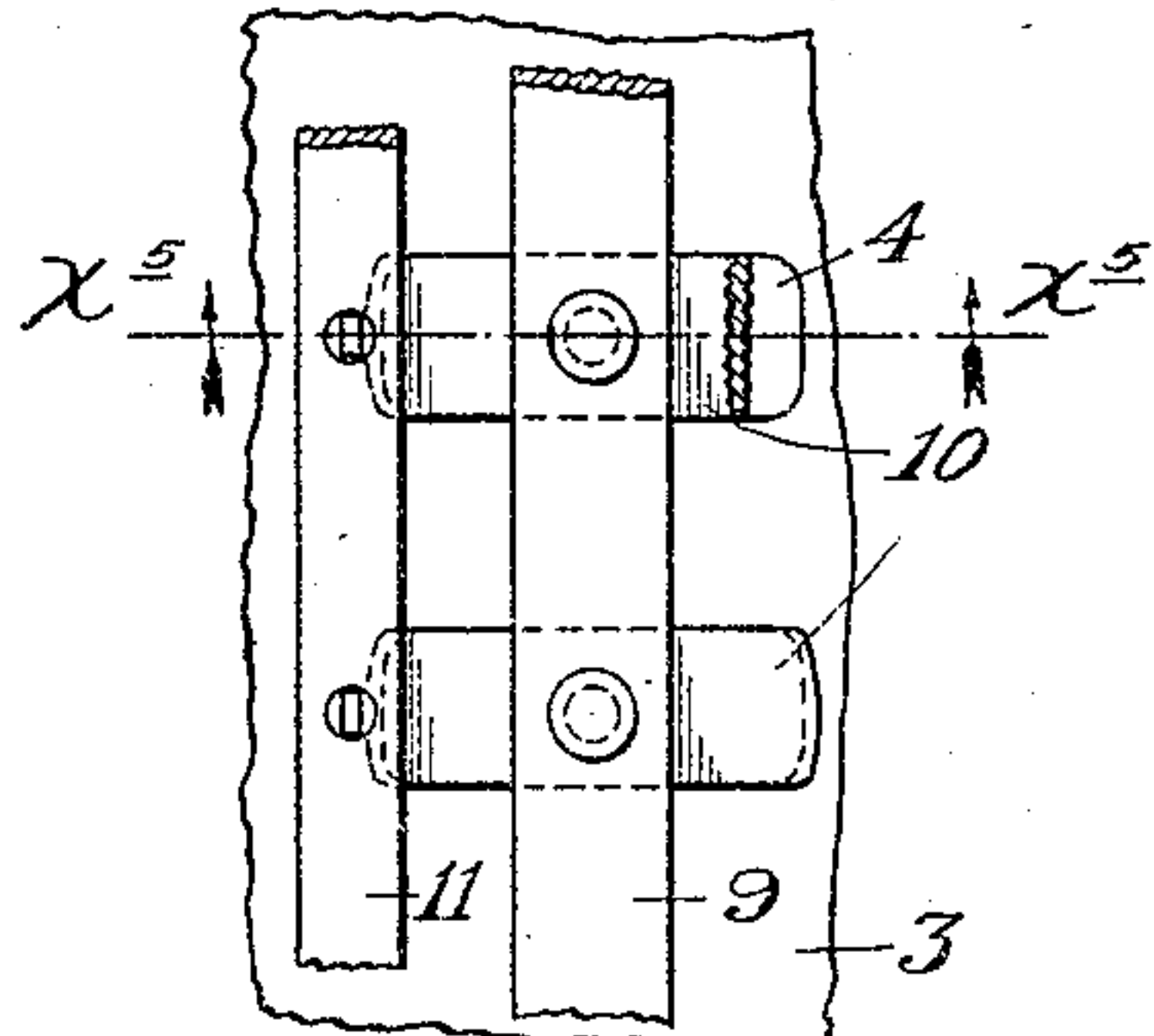


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

KNUD H. KNUDSVIG, OF BUXTON, NORTH DAKOTA.

ADJUSTABLE MESH-SIEVE.

SPECIFICATION forming part of Letters Patent No. 773,944, dated November 1, 1904.

Application filed March 21, 1904. Serial No. 199,178. (No model.)

To all whom it may concern:

Be it known that I, KNUD H. KNUDSVIG, a citizen of the United States, residing at Buxton, in the county of Traill and State of North Dakota, have invented certain new and useful Improvements in Adjustable-Mesh Sieves; and I do hereby 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.

My invention has for its object to improve the construction of adjustable-mesh sieves; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a bottom plan view of a sieve constructed in accordance with my invention. Fig. 2 is a transverse vertical section on the line $x^2 x^2$ of Fig. 1, the same being shown as turned upside down. Figs. 3 and 4 are details in bottom plan view showing a portion of the sieve on an enlarged scale. Fig. 5 is a vertical section on the line $x^5 x^5$ of Fig. 4.

The numeral 1 indicates the rectangular main frame of the sieve, and the numeral 2 indicates a rectangular supplemental frame, which is mounted to slide on the said main frame.

To the main frame 1 is secured a thin metal plate 3, having punched therefrom sections forming elongated perforations or meshes 4, so that the said perforate plate constitutes the screen proper. The said supplemental frame 2 is mounted to slide between the plate 3 and cleats 5, secured to the sides of the frame 1. The supplemental frame 2 is adapted to be adjusted and held where adjusted by a thumb-nut 6, which is pivotally held to the main frame 1 by keepers 7 and engages the screw-threaded outer end of a bolt 8, the inner end of which is attached to the supplemental frame 2, as best shown in Fig. 1.

Extending transversely across the several series of perforations 4 is a plurality of parallel anchor-bars 9, the ends of which work through the sides of the supplemental frame

2 and are rigidly secured to the sides of the main frame 1. Pivoted to the anchor-bars 9 are a series of angularly-adjustable mesh-closing clips 10, of which there is one for each perforation or mesh-opening 4. The corresponding ends of the clips 10 of a given series are pivotally connected to a so-called "thrust-bar" 11, which thrust-bar is at one end pivotally attached to a common tie-bar 12, which in turn is attached by short parallel links 13 to one side of the supplemental frame 2.

With the construction described it is evident that when the supplemental frame 2 is adjusted or moved by the thumb-nut 6 the tie-bar 12 will be moved laterally and will impart endwise movements to the clips 10, which will move the said clips angularly, so as to open or close the mesh-openings 4, depending on the direction of movement imparted thereto. The links 13 permit a slight endwise movement of the tie-bar 12, as is made necessary by the oscillatory movements of the clips 10.

In Fig. 3 the screen-meshes 4 are shown as partly opened up, while in Fig. 4 they are shown as entirely closed. It is of course evident that by the proper adjustments of the clips 10 the screen-meshes 4 may be varied between the maximum and minimum possible dimensions and, furthermore, that the shape of the said openings may be varied by such adjustments.

From what has been said it will be understood that the mechanism described is capable of modification within the scope of my invention as herein set forth and claimed.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. In a variable-mesh sieve the combination with the main frame and a supplemental frame mounted thereon, said supplemental frame having a perforated screen-plate secured thereto, of means for adjusting the frames with respect to each other, and a plurality of mesh-opening and mesh-closing elements, pivoted for movements over the face of said screen-plate, and connected to and receiving movements from said supplemental frame, substantially as described.

2. In a variable-mesh sieve, the combination with the main frame 1 and supplemental frame

2 mounted to slide thereon, and means for adjusting said frames with respect to each other, of a perforated screen-plate 3 secured to said main frame, and having meshes 4, a plurality
5 of anchor-bars 9 rigidly secured to said main frame, a series of mesh-closing clips 10 pivoted to said anchor-bars, thrust-bars 11 pivotally connecting the clips of each series, and a tie-bar 12 connecting said thrust-bars, and, in

turn, connected to said supplemental frame, 10 substantially as described.

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

KNUD H. KNUDSVIG.

Witnesses:

OLIVER S. HANSON,
L. H. ODEGARD.