

No. 653,620.

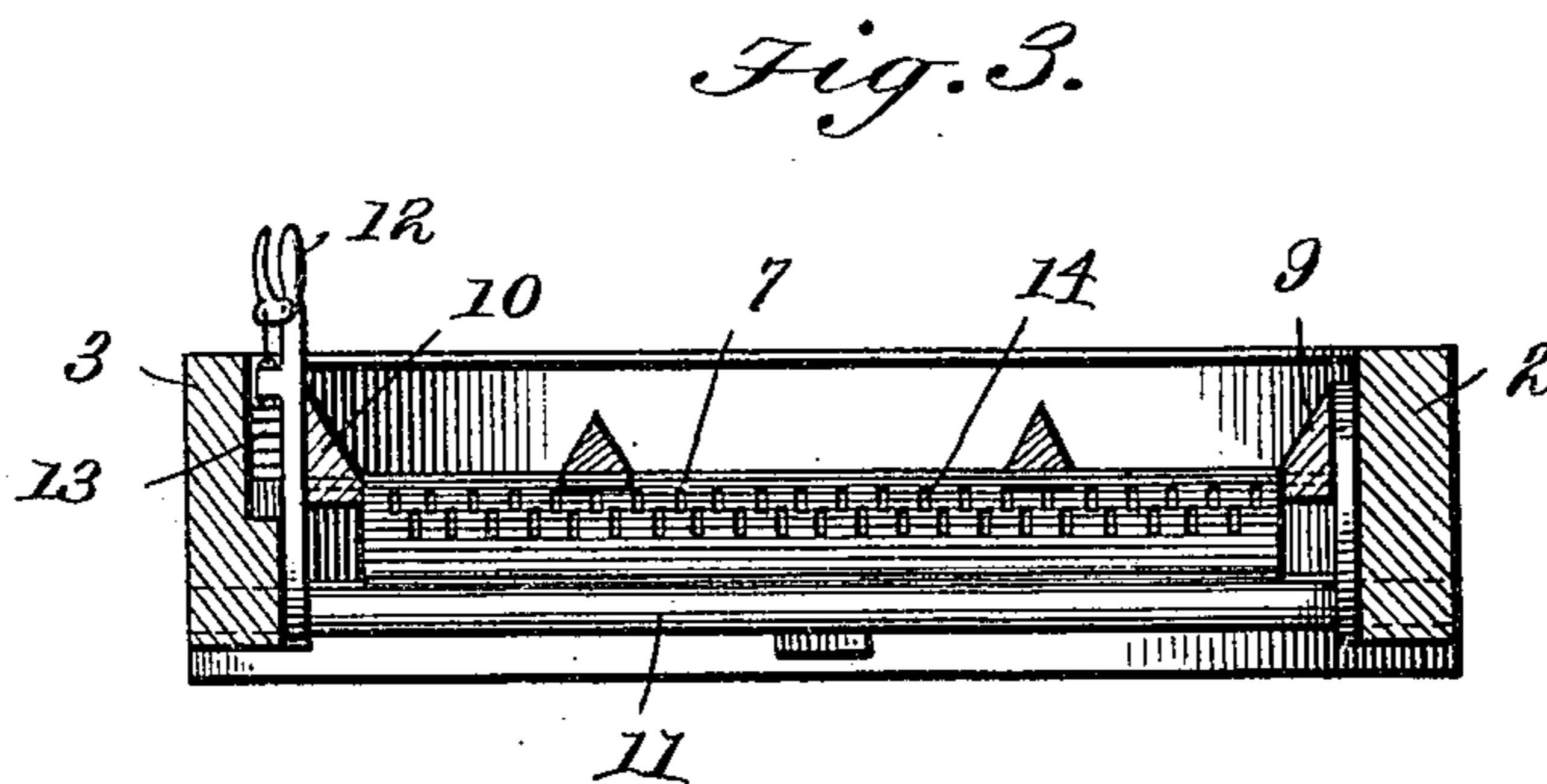
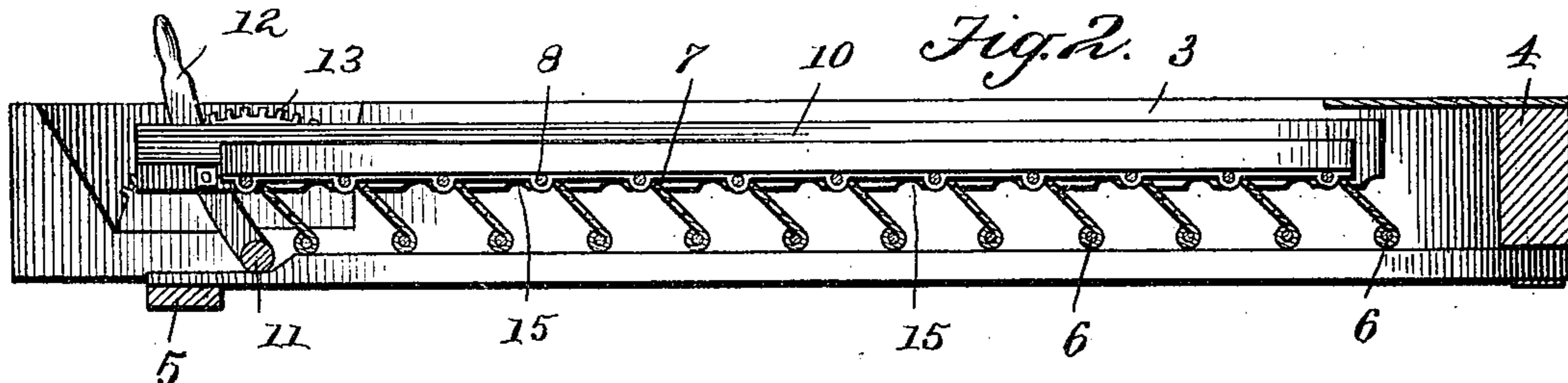
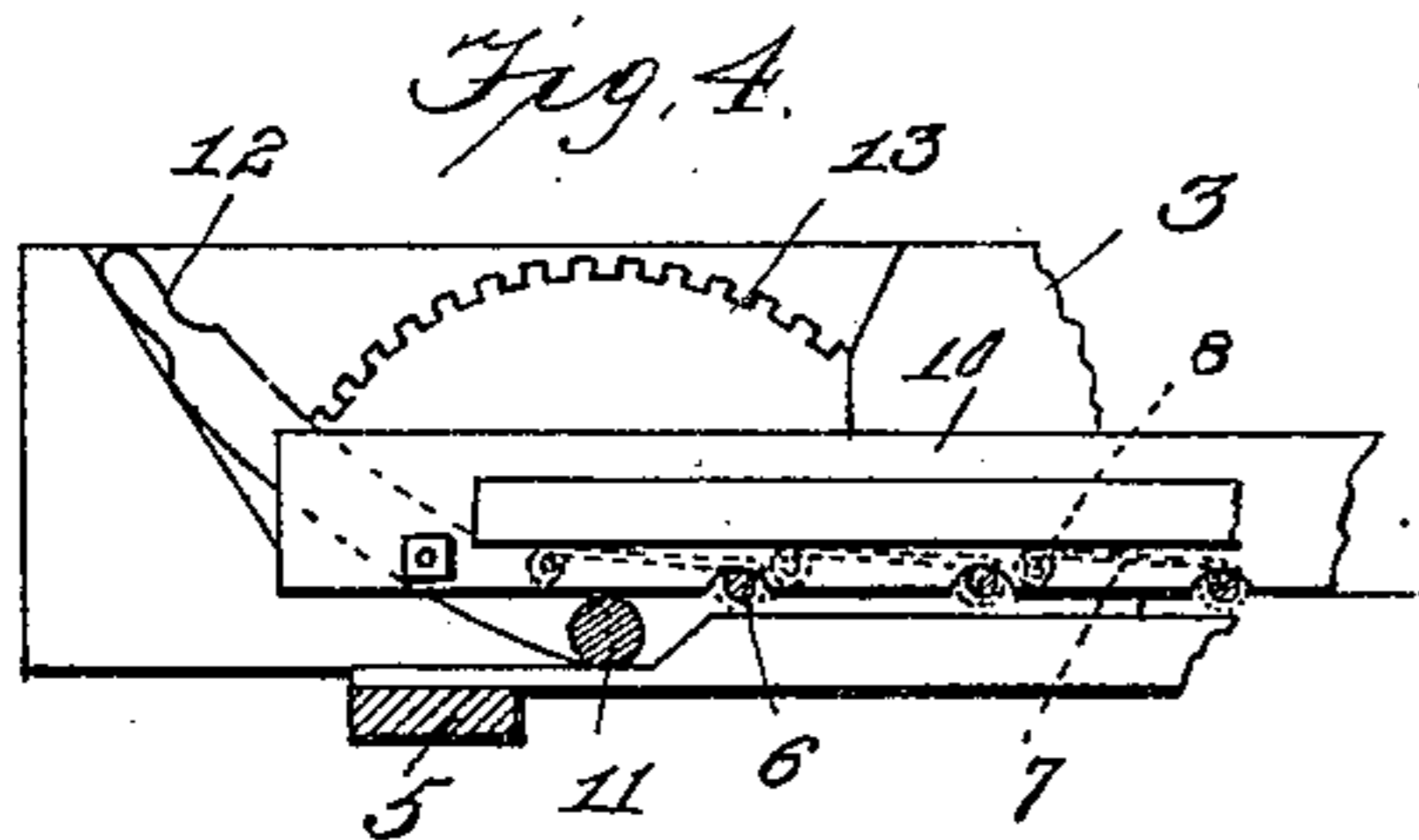
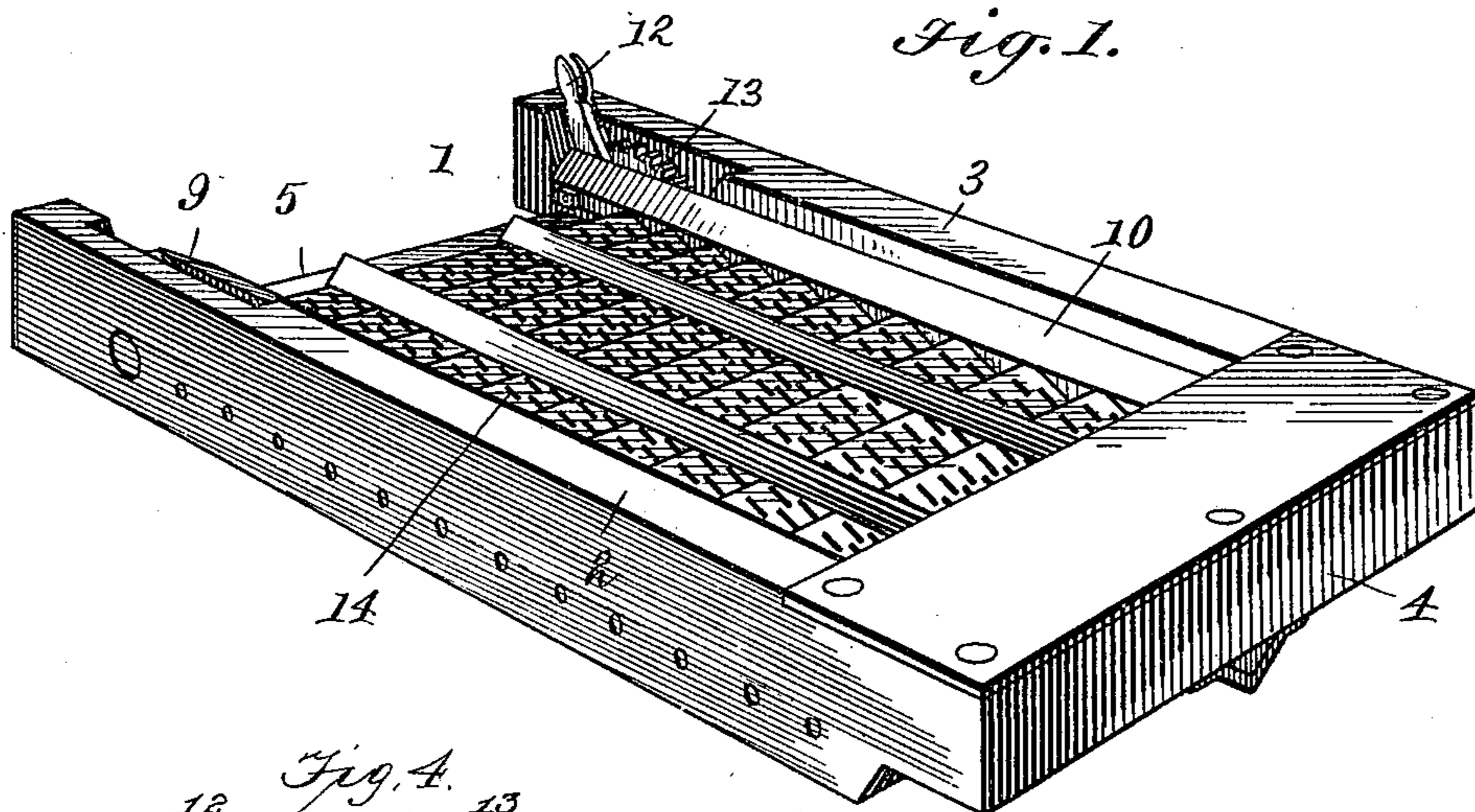
Patented July 10, 1900.

W. DOUGHERTY.

GRAIN SIEVE.

(Application filed Apr. 17, 1899.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM DOUGHERTY, OF FOUNTAIN, MINNESOTA.

## GRAIN-SIEVE.

SPECIFICATION forming part of Letters Patent No. 653,620, dated July 10, 1900.

Application filed April 17, 1899. Serial No. 713,308. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM DOUGHERTY, a citizen of the United States, residing at Fountain, in the county of Fillmore and State of Minnesota, have invented a new and useful Grain-Sieve, of which the following is a specification.

My invention relates to improvements in shaking-screens for threshing-machines, one object of which is to provide a device of the character described that will be easily adjustable to accommodate and screen different kinds or sizes of grain.

Another object is to so construct a machine of this class that all the parts are capable of quick and responsive manipulation at the hands of an ordinary operator, requiring no skill or tools to be used for adjustment.

With these objects in view my invention consists in the parts and combination of parts, as will be more fully set forth in the following specification and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal sectional view, and Fig. 3 is a transverse section, of the same. Fig. 4 is a fragmental view showing the respective parts in the lowered position and illustrating the manner in which the notches in the oscillating bars engage with the rods to which the lower edges of the slats are pivoted.

Referring to the drawings by numerals, 1 designates a rectangular screen-frame designed to be mounted in any well-known manner, whereby an endwise-reciprocating motion will be imparted to the screen, and said frame consists of the side sections 2 and 3, connected at the ends by means of the end sections 4 and 5.

6 represents a series of rods running transversely of the frame and to which the slats 7 are pivotally connected at their lower edges and at their upper edges to the similar rods 8, journaled to the oscillating bars 9 and 10. These bars are connected together by means of the rods 8 and a rock-shaft 11, operated by means of a lever 12, mounted upon which is a pawl adapted to engage the segmental rack 13, and thereby hold and retain the bars in any predetermined position, and by thus regulating the slant of the slats adjust the mesh of the screen.

It will be noticed that the bars 9 and 10 fit snugly against the side bars of the frame, but are chamfered on the inside. The purpose of this is to prevent the grain from falling between the outside of the oscillating bars and the inside of the sides of the main frame.

14 designates slots in the slats arranged in alternating rows and are designed to be used for screening small grain, such as wheat and the like, in which case the slats will lie snugly upon one another, as seen in Fig. 1 of the drawings, and be held and retained in said position by the cut-out portions or notches 15 of the oscillating bars 9 and 10 resting or being seated upon the transverse rods 6.

The operation of the device is as follows: All the parts being assembled, supposing it is desired to screen small grain, the screen will be in the position shown in Fig. 1. After the grain has been screened the operator grasps the hand-lever, pivotally connected to the oscillating bars, and by a forward movement imparts an upward and forward motion to said bars, thus forcing the upper edges of the slats apart, as is best shown in Fig. 2, when the contents of the screen will drop below. If it is desired to enlarge the mesh of the screen for larger matter, the distance apart of the slats can be regulated by a forward movement of the hand-lever, the pawl thereon dropping between the teeth of the segmental rack to insure the oscillating bars against further movement.

From the foregoing it will be seen that I have provided a sifting-screen simple in construction, capable of quick and effective manipulation, and one that will readily recommend itself to the trade.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a screen, the combination with the main frame of a series of transversely-arranged screening-slats pivotally mounted to said frame at their lower edges, and adapted to lie one upon the other and two longitudinally-arranged side bars to which the slats are journaled at their upper edges, said side bars lying snugly against the inner sides of the main frame and having their inner sides chamfered and provided with notches in their lower edges designed to engage the lower

pivotal connections of the said slats only when the slats are lying one upon another for the purpose set forth.

2. In a screen, the combination with the  
5 main frame, of two longitudinally-arranged bars chamfered on their inner sides and having their outer sides fitting snugly against the inner sides of the main frame, of a series of metallic slats hinged to the longitudinal  
10 bars and the main frame, said slats having

each two series of alternately-arranged slots, and an adjusting-lever connected to the main frame and to the longitudinal bars whereby the distance apart of the slats can be regulated, substantially as described.

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Witnesses:

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