

No. 636,046.

Patented Oct. 31, 1899.

F. KESSLER.
FLOOD GATE.

(Application filed Sept. 2, 1898.)

(No Model.)

Fig. 1.

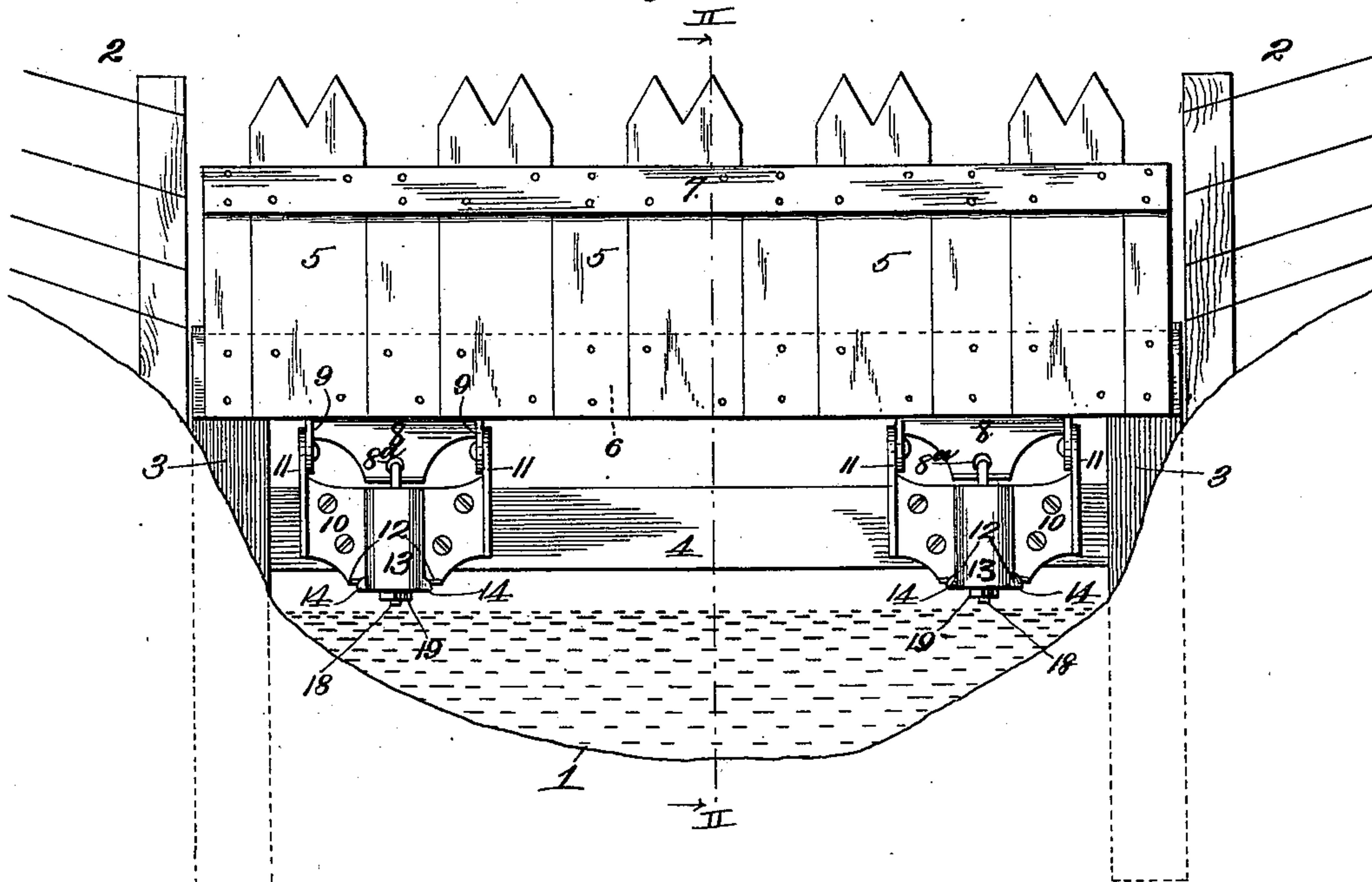


Fig. 2.

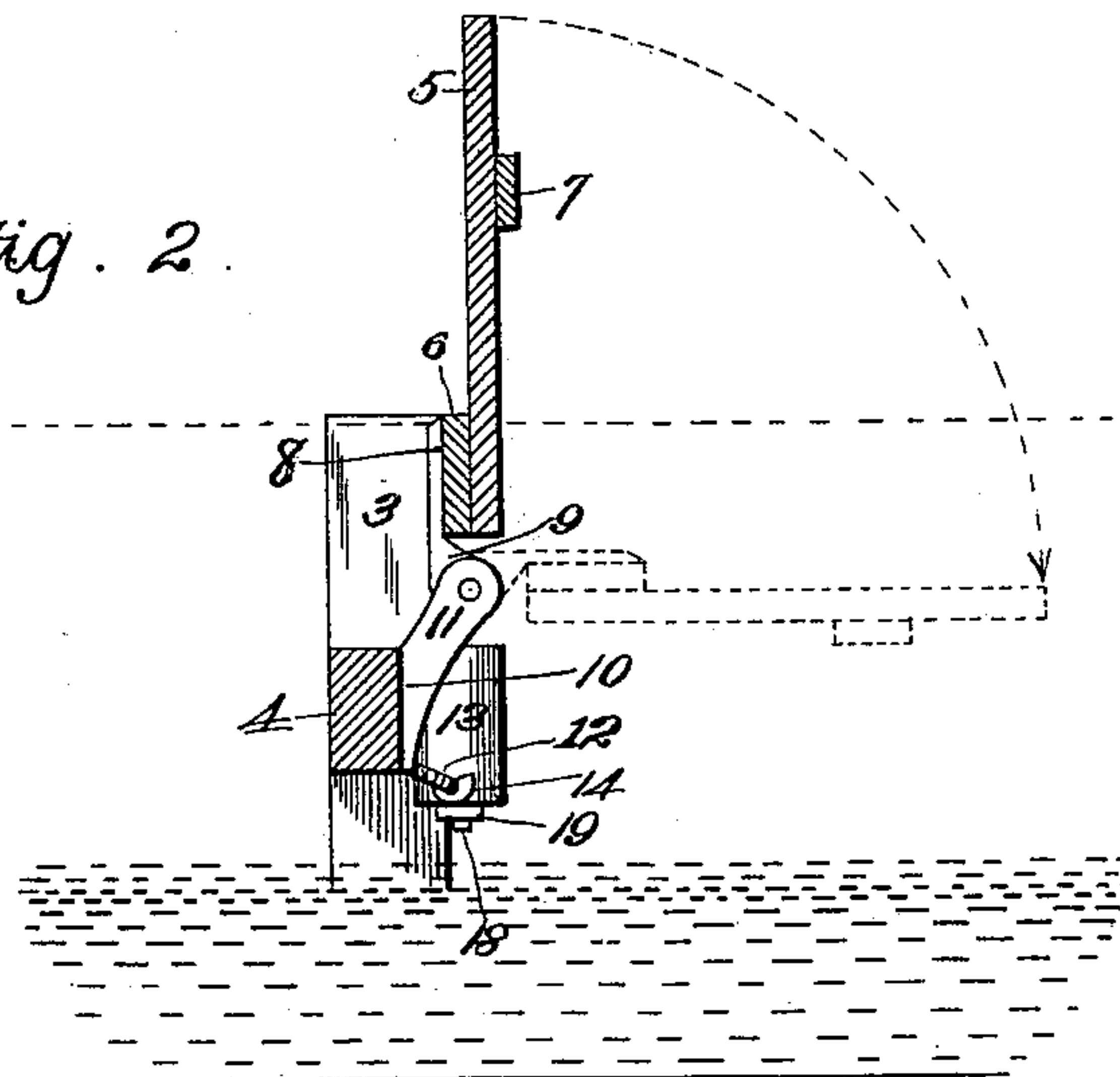
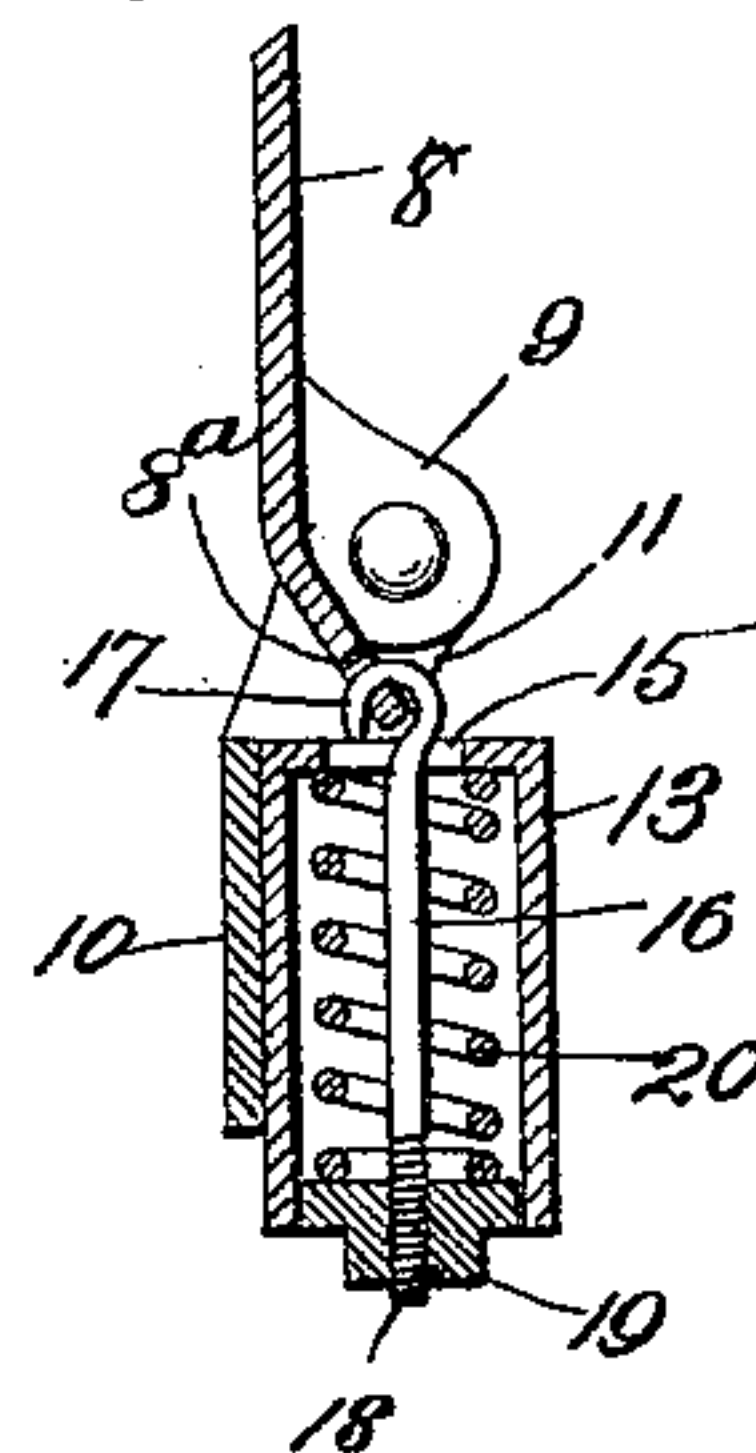


Fig. 3.



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UNITED STATES PATENT OFFICE.

FREDERICH KESSLER, OF CORDER, MISSOURI.

FLOOD-GATE.

SPECIFICATION forming part of Letters Patent No. 636,046, dated October 31, 1899.

Application filed September 2, 1898. Serial No. 690,112. (No model.)

To all whom it may concern:

Be it known that I, FREDERICH KESSLER, a citizen of the United States, residing at Corder, in the county of Lafayette and State of Missouri, have invented certain new and useful Improvements in Flood-Gates, of which the following is a specification.

My invention relates to flood-gates, and more especially to that type for use on creeks or streams running through farm properties or on bottom-lands which at periods are subject to freshets or overflows.

The object of the invention is the provision of a simple, strong, durable, and cheap flood-gate which is positive and reliable in operation.

With this object in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents a stream or creek bridged by a flood-gate embodying my invention. Fig. 2 is a section taken on the line II II of Fig. 1. Fig. 3 is a vertical section of one of the spring-hinges connecting the gate proper and the framework.

In said drawings, 1 designates a stream or creek, and 2 2 parts of a fence which terminates on the banks of the creek.

3 3 designate vertical posts embedded in the banks of the stream adjacent to the fence-post, and 4 a mudsill connecting said posts near the bed of the stream.

The gate proper comprises the vertical boards 5, nailed or otherwise secured at their lower ends to the cross-bar 6 and at their upper ends to the cross-bar 7, said cross-bar 6 being adapted by contact with the upper ends of posts 3 to arrest the gate when it has assumed its vertical or operative position, as shown in Figs. 1 and 2.

The hinge, of which there may be any suitable number, is constructed as follows—that is to say: 8 designates a plate which is secured to the cross-bars 6 and depends therefrom and has its central portion bent forward and perforated, as shown at 8^a. Said plate is also provided at its sides or lower corners with the forwardly-projecting ears 9.

10 designates the hinge-plate, which is bolted or otherwise suitably secured to the sill 4 and is provided with vertical ears 11, 55 embracing externally and pivotally connected to the ears 9 of plate 8. The plate 10 is also provided with a pair of arms 12 at its lower edge, engaging sockets 14 of the cylinder 13, extending vertically of and bearing against 60 the plate 10, said cylinder having its lower end open and provided with a slot 15 in its upper end, through which slot projects the piston-rod 16, extending axially of the cylinder. Rod 16 is provided with a hook 17 at 65 its upper end, engaging the perforation 8^a of plate 8, and is screw-threaded at its lower end, as at 18. A disk or piston 19, having a squared head, is screwed upon the lower end of rod 16, and a coil-spring 20 of the expan- 70 sive type surrounds said rod and bears at its opposite ends against the top of the cylinder and said piston in order, with the assistance of the similar spring of the companion hinge or hinges, to hold the gate in its vertical po- 75 sition with a yielding pressure.

In practice the gate normally occupies the position shown in full lines, Figs. 1 and 2, and thereby renders it absolutely impossible for a hog or other animal to follow the creek 80 or stream and pass the fence-line from one field into another. In case of flood, however, when the depth of the water is increased, it is obvious that the increased pressure brought to bear upon the gate causes the latter to 85 swing downward out of the way, as indicated by dotted lines, Fig. 2, and permit logs and driftwood carried down by the swiftly-moving stream to pass without injury to the gate. When the water has subsided to a lower plane 90 than the gate proper, the springs 20, overcome by the increased pressure of the swollen stream, expand and return the gate to its original or vertical position in order that the animals may be unable to pass the fence-line. 95

If the springs become weakened by use, each may be tensioned by simply adjusting the disk or piston 19 upon the threaded rod 16; or, if desired, the mechanical equivalent of these springs may be employed—that is to 100 say, a weight may be connected to the plates 8 instead of the springs. It is obvious that other changes in the detail construction, form, or arrangement of the parts may be made

without departing from the spirit and scope of my invention.

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

5 In a flood-gate, the combination of a pair of posts 3 driven in the bed of a stream at opposite sides thereof, a mudsill 4 connected to said posts, a gate, consisting of a series of
10 vertical boards 5, connected near their lower and upper ends respectively and at opposite sides by the cross-bars 6 and 7, the former being adapted to strike against the upper ends of the posts 3 when the gate is closed, a
15 pair of hinges connecting the gate with the mudsill, said hinges comprising the plates 10 provided with the upwardly and forwardly projecting perforated ears 11, and the arms
20 12, cylinders 13, provided with sockets 14 engaged by said arms 12, said cylinders being

open at their lower ends and provided with slots 15 in their upper ends, a pair of plates 8 secured to cross-bar 6 and bent forward at their lower ends and provided with apertures 8^a, and provided at their sides with ears 9 piv- 25
oted to the ears 11, pistons 19 fitting in said cylinders provided with upwardly-projecting stems 16 terminating in hooks 17 pivotally engaged with the apertures 8^a, and spiral expansion-springs encircling said stems and bearing 30
at their opposite ends against the upper or slotted end of the cylinders and said pistons, all arranged substantially as and for the purpose described.

In testimony whereof I affix my signature 35
in the presence of two witnesses.

FREDERICH KESSLER.

Witnesses:

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