

(No Model.)

J. H. KUONI.
DREDGE.

No. 468,201.

Patented Feb. 2, 1892.

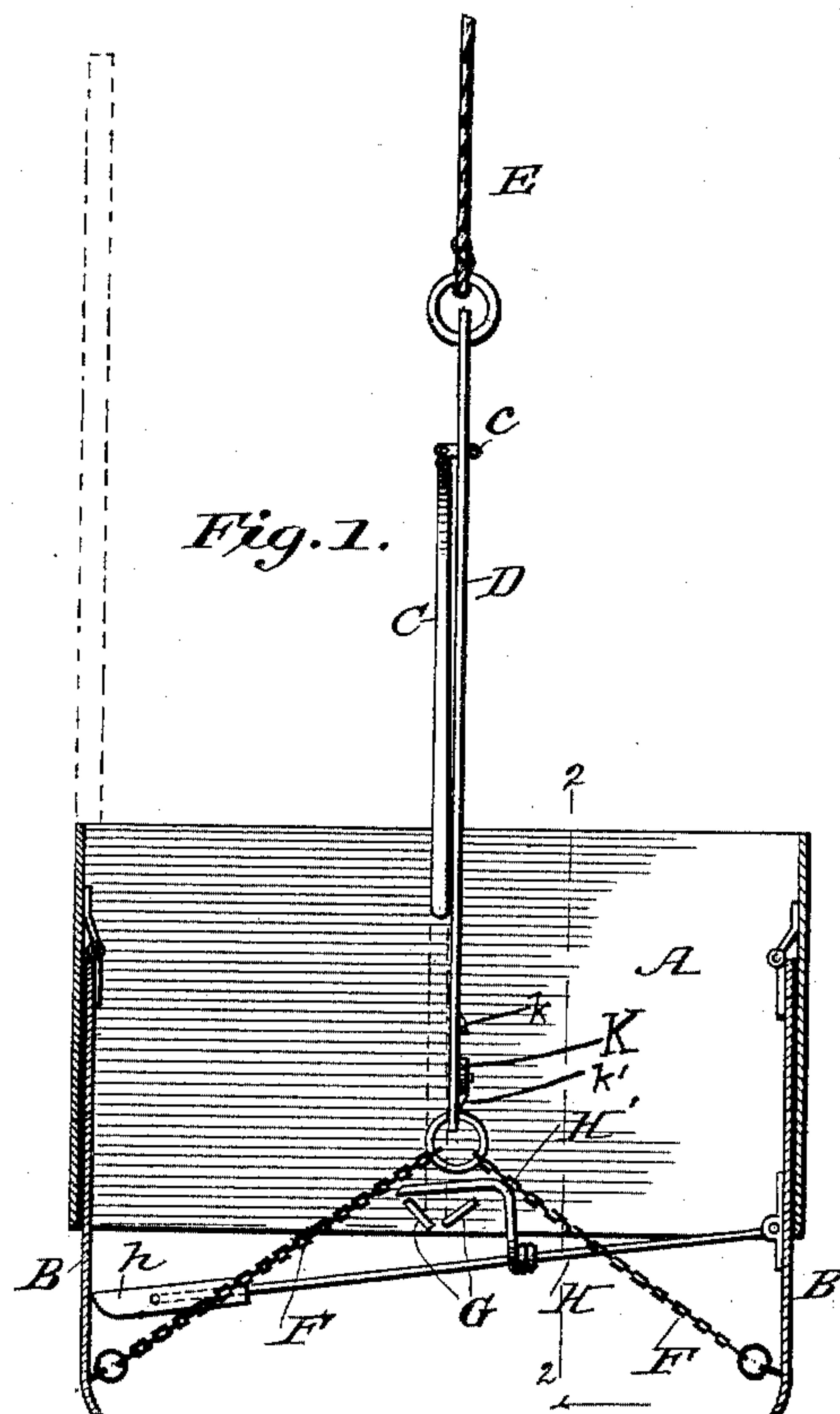


Fig. 1.

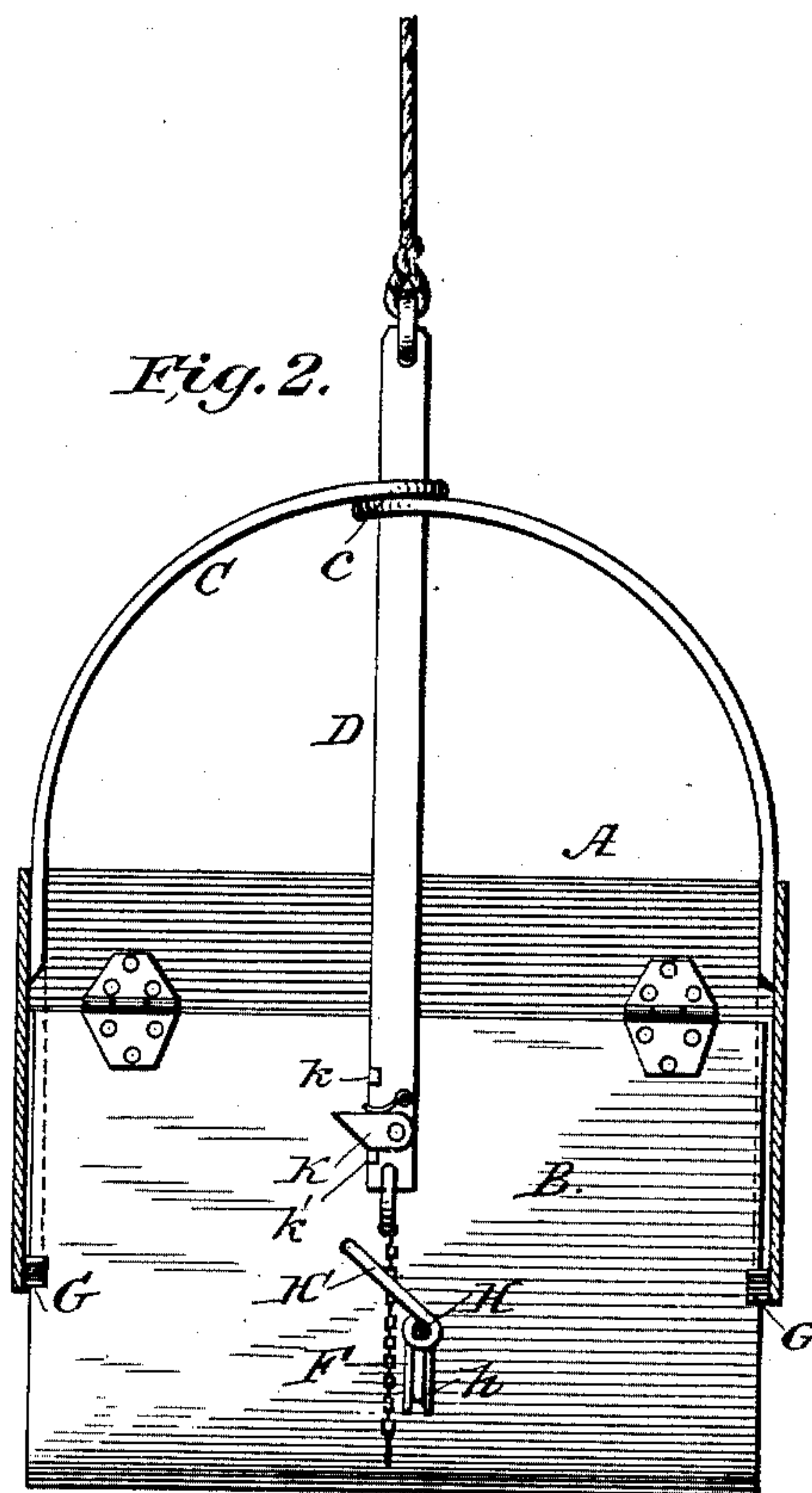
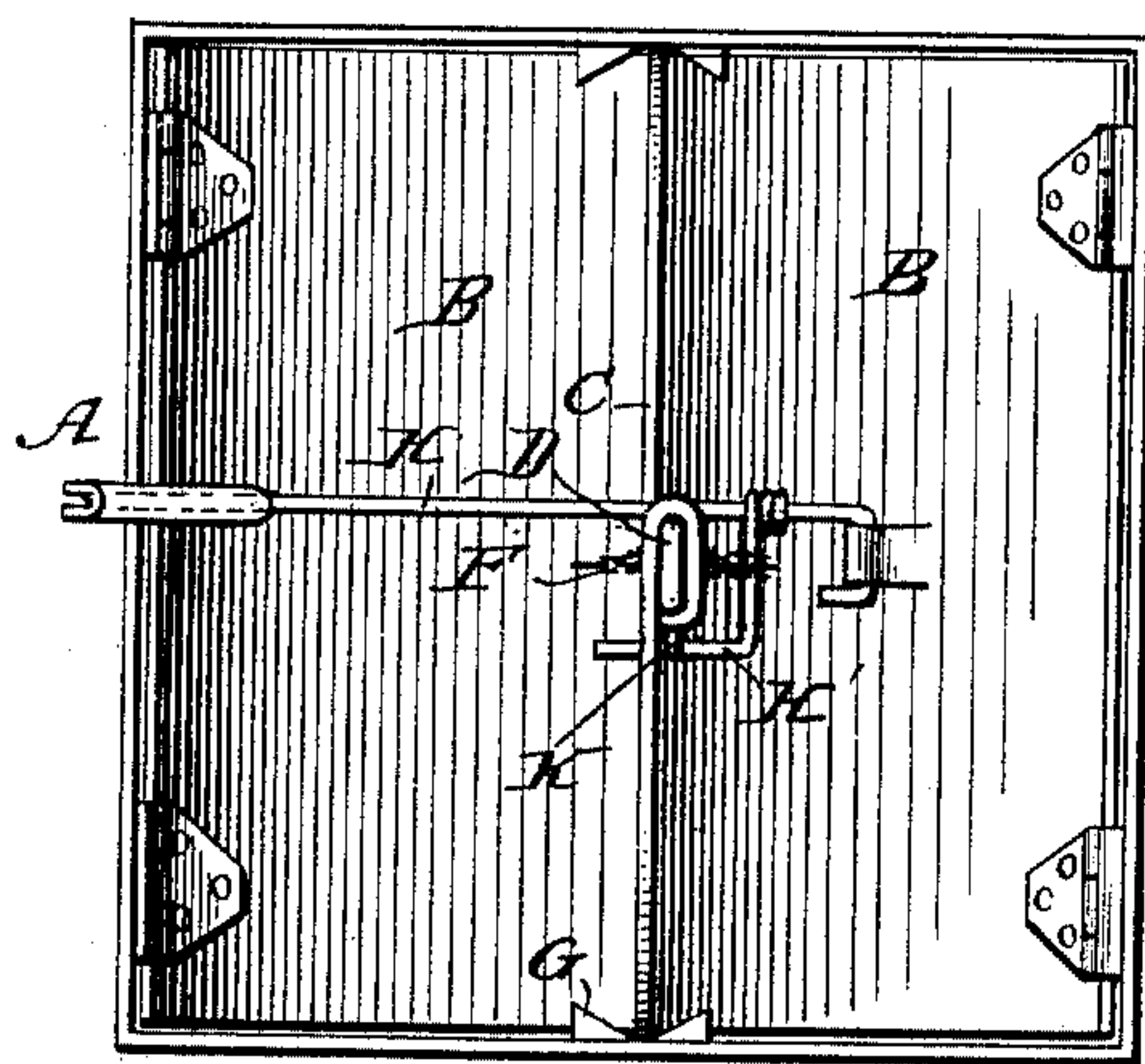


Fig. 2.

Fig. 3.



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DREDGE.

SPECIFICATION forming part of Letters Patent No. 468,201, dated February 2, 1892.

Application filed May 13, 1891. Serial No. 392,634. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. KUONI, residing at Marysville, Marshall county, and State of Kansas, have invented a new and useful
5 Improvement in Clam-Shell Buckets, of which the following is a specification.

This invention relates, generally, to dredges, and more particularly to that class thereof known as "clam-shell dredges," the object of
10 my invention being to provide a dredge of this class that shall be simple in construction, easy to operate, and particularly adapted for cleaning wells and the like.

With these objects in view my invention
15 consists in the detailed construction of parts and their novel combination or arrangement, all of which will be fully explained hereinafter, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a cross-section with the
20 shovels down. Fig. 2 is a similar view on the line 2 2 of Fig. 1, and Fig. 3 is a top plan view with the shovels drawn up.

In carrying out my invention I employ a
25 bottomless box or receptacle A and dredge-shovels B B, pivoted to opposite inner sides of said receptacle, the lower ends of the shovels projecting below the lower edges of the receptacle. A rigid arched bail C is attached
30 at its ends to opposite ends of the receptacle, and at the center of said bail is produced an elongated loop or aperture c, the major axis of said loop being parallel with the dredge-shovels. A flat rod or bar D is passed through
35 the loop c and rests with its flat faces parallel with the dredge-shovels, and to the upper end of said rod is attached a rope or chain E, while chains F F are attached to the lower end, the outer ends of said chains being connected with
40 the inner faces of the shovels near the lower ends of the same. Stops G G are arranged in the receptacle A upon the inner faces of the opposite ends near their lower edges, said stops serving to limit the inward and upward
45 movements of the shovels, whereby a bottom may be produced for the receptacle A.

A locking-bar H is pivoted to the inner face of one of the shovels and is adapted to swing
50 down upon the opposite shovel, holding the shovels open when the dredge is descending. The locking-bar is of a length somewhat less than the width of the receptacle, and at its

free end is provided with an arm h, pivotally attached to the end of the bar, said arm bearing upon the opposite shovel and locking the
55 same in an opened position.

An arm H', essentially right angular in shape, is rigidly secured at one end to the central portion of the locking-bar H, the free or outer portion of the arm being parallel
60 with the said locking-bar, extending toward the free end of said bar, but lying within a different vertical plane. The flat rod or bar D works between the locking-bar and its attached arm, a spring-actuated trigger-finger
65 K being pivotally secured to the lower end of said rod or bar and adapted to engage the arm H' as the rod is raised, thereby lifting the locking-bar, unlocking the shovels, and permitting them to be brought together by the
70 chains F F, attached to the rod D. Stops k k' are arranged above and below the trigger to limit the movement of the same. The arm h, being pivoted to the end of the locking-bar, turns upon the pivot, thereby yielding easily.
75

In operating my improved dredger the shovels B are opened and the free end of the locking-bar H is turned down upon the opposite shovel, the lock-arm h being arranged in alignment with the bar, the rod D and chains F
80 being drawn above the locking-bar H. The bucket is now ready to descend, and when it reaches the bottom the momentum will carry the rod D downward, the lower end passing between the locking-bar and its attached arm,
85 the pivoted trigger-finger permitting the same, and when the chain E and rod D are elevated the trigger-finger engages the arm H', unlocking the shovels, which are drawn together by means of the chain, thus elevating a quantity
90 from the bottom.

If desired, the bail may have its ends extended down into the receptacle and form the stops for the shovels, as shown in dotted lines, and, if desired, a rod may be rigidly secured
95 to the receptacle for forcing it down in shallow and heavy dredging.

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

1. In a dredge, the combination, with a
100 bottomless receptacle, of the shovels hinged to the opposite sides thereof, the arched bail secured to the opposite ends, said bail having

a central loop or aperture, the rod passing through the said loop, the chains connecting the shovels and the rod, the locking-bar pivoted to one of the shovels, and intermediate
5 devices connecting the rod and the locking-bar, substantially as shown and described.

2. The combination, with the bottomless receptacle, of the shovels hinged as described, the arched bail carrying a loop, the flat rod,
10 the pivoted trigger, the chains, and the locking-bar, all constructed and arranged substantially as shown and described.

3. The combination, with the bottomless re-

ceptacle, of the shovels hinged as described, the stops attached to the ends of the receptacle, the arched bail carrying an elongated
15 loop, the flat rod, the chains connecting the rod and the shovels, the locking-bar, pivoted arm, and an attached bent or angular arm, the pivoted trigger-finger arranged upon the
20 rod, and the stop arranged below the said trigger, substantially as shown and described.

JOHN H. KUONI.

Witnesses:

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