

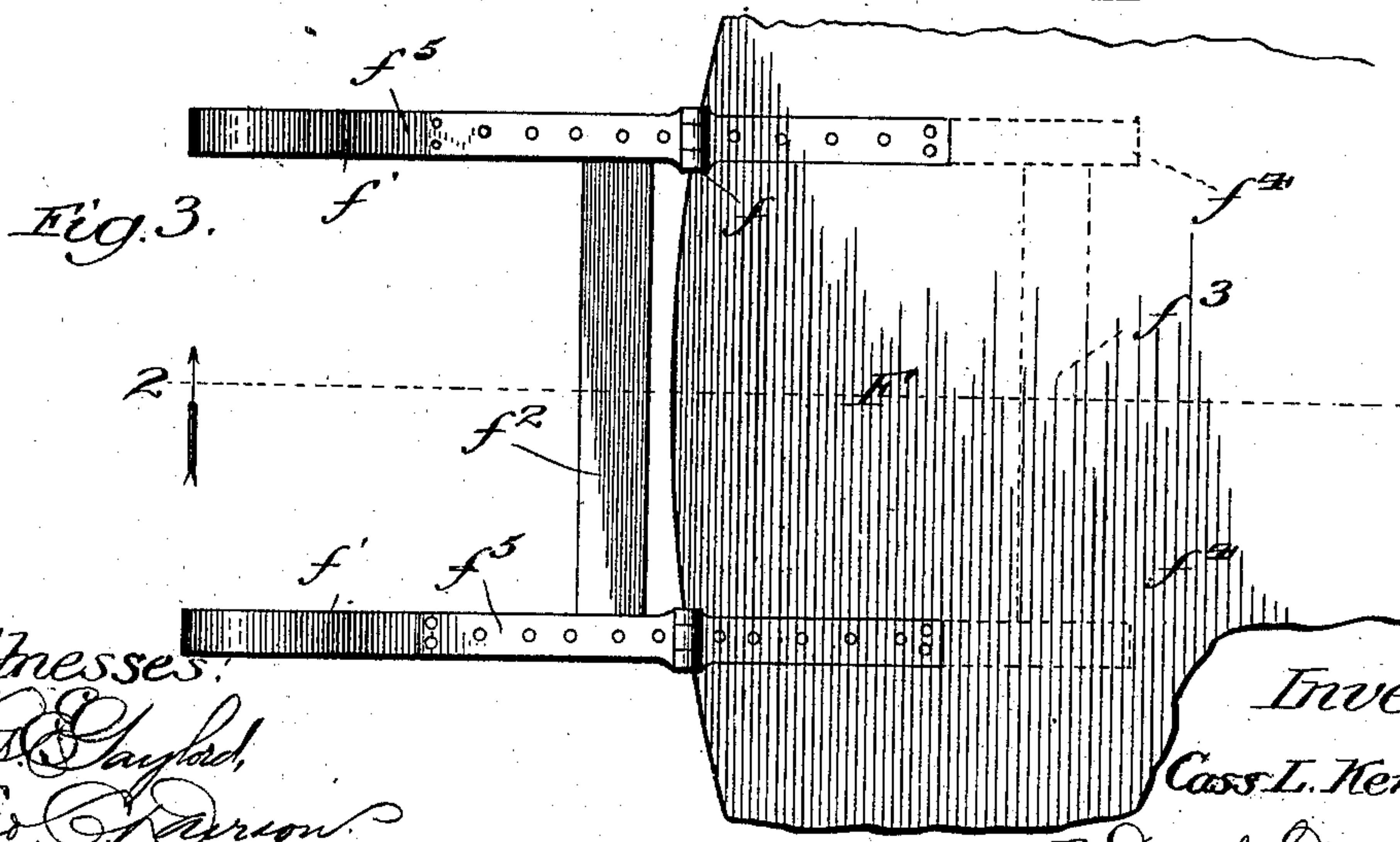
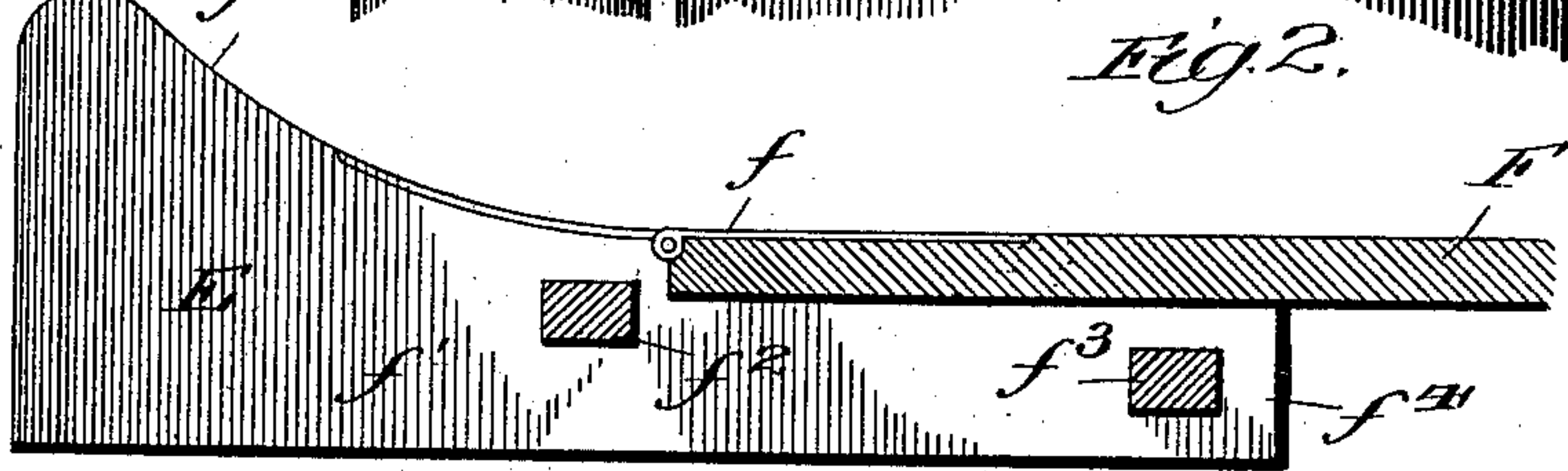
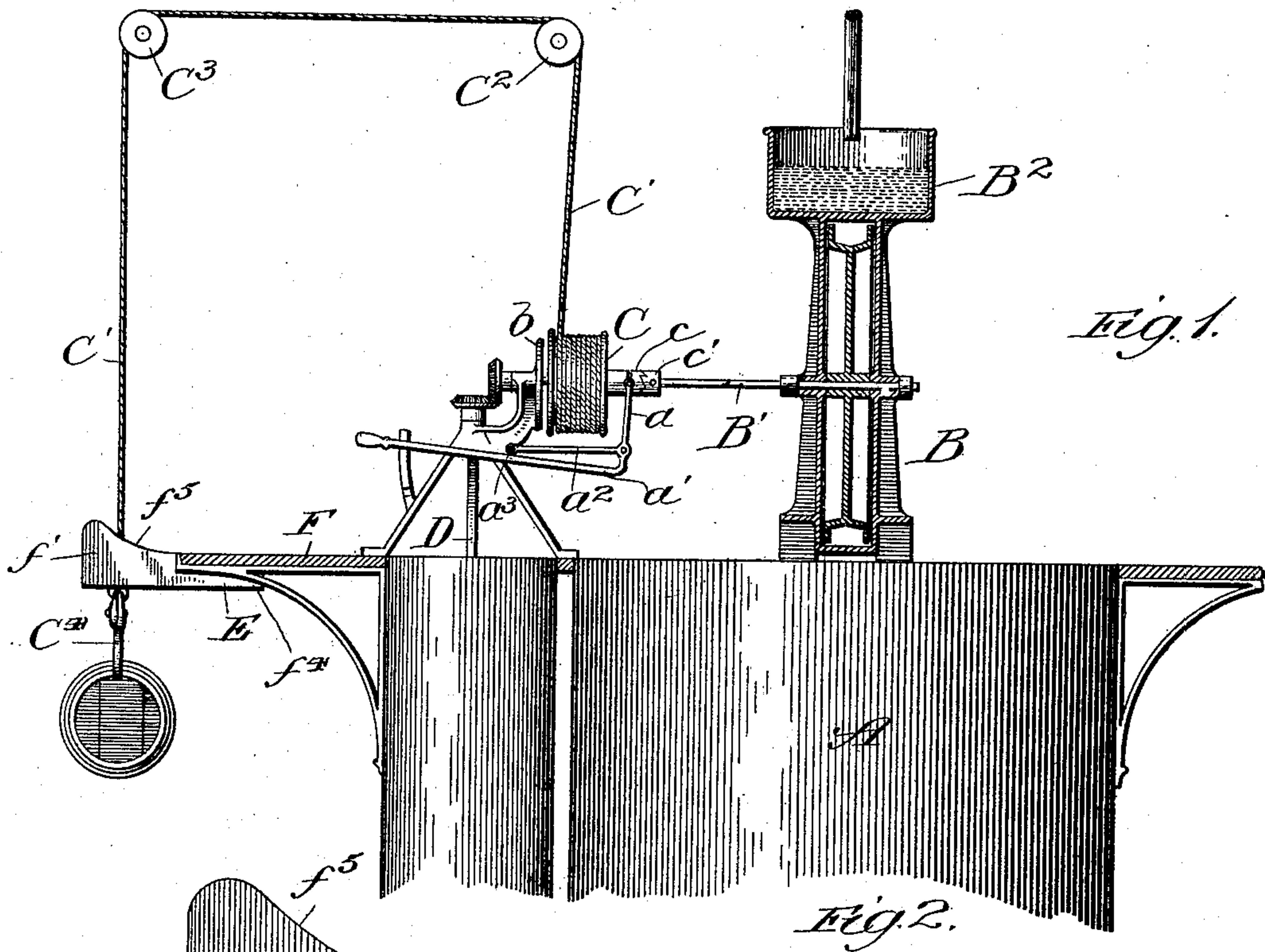
No. 717,215.

Patented Dec. 30, 1902.

C. L. KENNICOTT.
HOISTING APPARATUS.

(Application filed Feb. 5, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

CASS L. KENNICOTT, OF CHICAGO, ILLINOIS.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 717,215, dated December 30, 1902.

Application filed February 5, 1902. Serial No. 92,743. (No model.)

To all whom it may concern:

Be it known that I, CASS L. KENNICOTT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Hoisting Apparatus, of which the following is a specification.

My invention relates particularly to hydraulic hoisting apparatus for use in connection with water-purifying apparatus; and my primary object is to provide for use, in connection with water-purifying apparatus, a hoisting device for use in hoisting chemicals or other needed materials.

My invention is illustrated in its preferred form in the accompanying drawings, in which—

Figure 1 represents a broken sectional view of the outer portion of a water-purifying apparatus equipped with my present improvements—such, for instance, as that described in my pending application, Serial No. 72,665, filed August 20, 1901; Fig. 2, a sectional view taken as indicated at line 2 of Fig. 3, and Fig. 3 a broken plan view of a portion of the apparatus shown in Fig. 1.

A represents the upper portion of water-purifying apparatus including a settling-tank such as that described in the above-designated application; B, a water-wheel which is turned in the usual manner by water entering the machine; B', a shaft turned by said water-wheel; B², a "hard-water" tank, from which the wheel B is supplied, the water passing from the wheel B in the usual manner to be treated by chemicals; C, a drum loosely journaled on the shaft B'; D, a stirrer-shaft for a lime or other chemical-solution tank, the same being operated from the shaft B' in a well-known manner; C', a cable secured to the drum C and passing about pulleys C² C³; C⁴, tongs supported by the cable C' and serving to lift a keg, barrel, or like, and E an upwardly-swinging horizontally-disposed bracket pivotally connected with a fixed bracket F.

The drum is shifted by means of a yoke *a* on a bell-crank hand-lever *a'*, carried by an arm *a*², which is secured at a stationary pivot *a*³. Adjacent to one end of the drum is a

stationary friction-disk *b*. The yoke *a* engages a friction member *c*, which coöperates with a clutch member *c'*, fixed to the shaft B'.

The swinging bracket E is secured to a fixed bracket F by means of hinges *f*, said bracket comprising members *f'*, joined by cross members *f*² *f*³. As shown in Fig. 1, the members *f'* have inwardly-projecting arms *f*⁴, which engage the under side of a platform or bracket F, thereby preventing the outer end of the bracket E from swinging below a horizontal. As shown in said figure, the bracket-arms *f'* have downwardly and inwardly inclined surfaces *f*⁵.

The operation will be readily understood. When it is desired to hoist a barrel or other article, an attendant moves the hand-lever *a'* to throw the drum into gear, and the water-wheel then serves to hoist the barrel till it lifts and passes the bracket E, whereupon said bracket drops to a horizontal position. The attendant then by a reverse movement of the hand-lever shifts the drum into frictional engagement with the disk *b*, leaving the barrel to settle down onto the bracket E, from which it rolls onto the bracket or platform F.

Changes in minor details of construction within the spirit of my invention may be made. Hence no undue limitation is to be understood from the foregoing detailed description.

What I claim as new, and desire to secure by Letters Patent, is—

1. In hoisting apparatus of the character described, the combination of a water-wheel having a shaft provided with a clutch member, a hoisting-drum having a clutch member for engaging said first-named clutch member, a fixed friction-disk adjacent to one end of the drum, and means for shifting the drum.

2. In apparatus of the character described, the combination of a hoisting-drum, a hoisting-cable, and a projecting bracket movable by the object being hoisted and automatically returned to its first position to support the object after the latter has been lifted above said bracket, said bracket having an inclined upper surface, for the purpose set forth.

3. In apparatus of the character described,

the combination of a hoisting-cable, a pulley receiving said cable and located above the path of the object to be hoisted, means for operating the cable, and an upwardly-swinging horizontally-projecting bracket having a downwardly and inwardly inclined surface.

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4. In apparatus of the character described, the combination of a water-wheel provided with a shaft equipped with a clutch member, a shiftable drum equipped with a clutch member, a friction-disk coacting with one end of such drum, a lever for shifting said drum, a pulley, a hoisting-cable, and an upwardly-swinging bracket projecting into the path of the article to be hoisted and provided inside its pivot with an arm engaging a stationary part and serving to prevent said bracket from

swinging downwardly beneath a horizontal position.

5. In apparatus of the character described, the combination of a stationary platform, a bracket pivotally connected therewith and comprising two members having downwardly and inwardly inclined surfaces, means for preventing said bracket from swinging beneath a horizontal position, and means for hoisting an object in a path crossed by the outer portion of said swinging bracket, substantially as described.

CASS L. KENNICOTT.

In presence of—

ALBERT D. BACCI,
W. B. DAVIES.