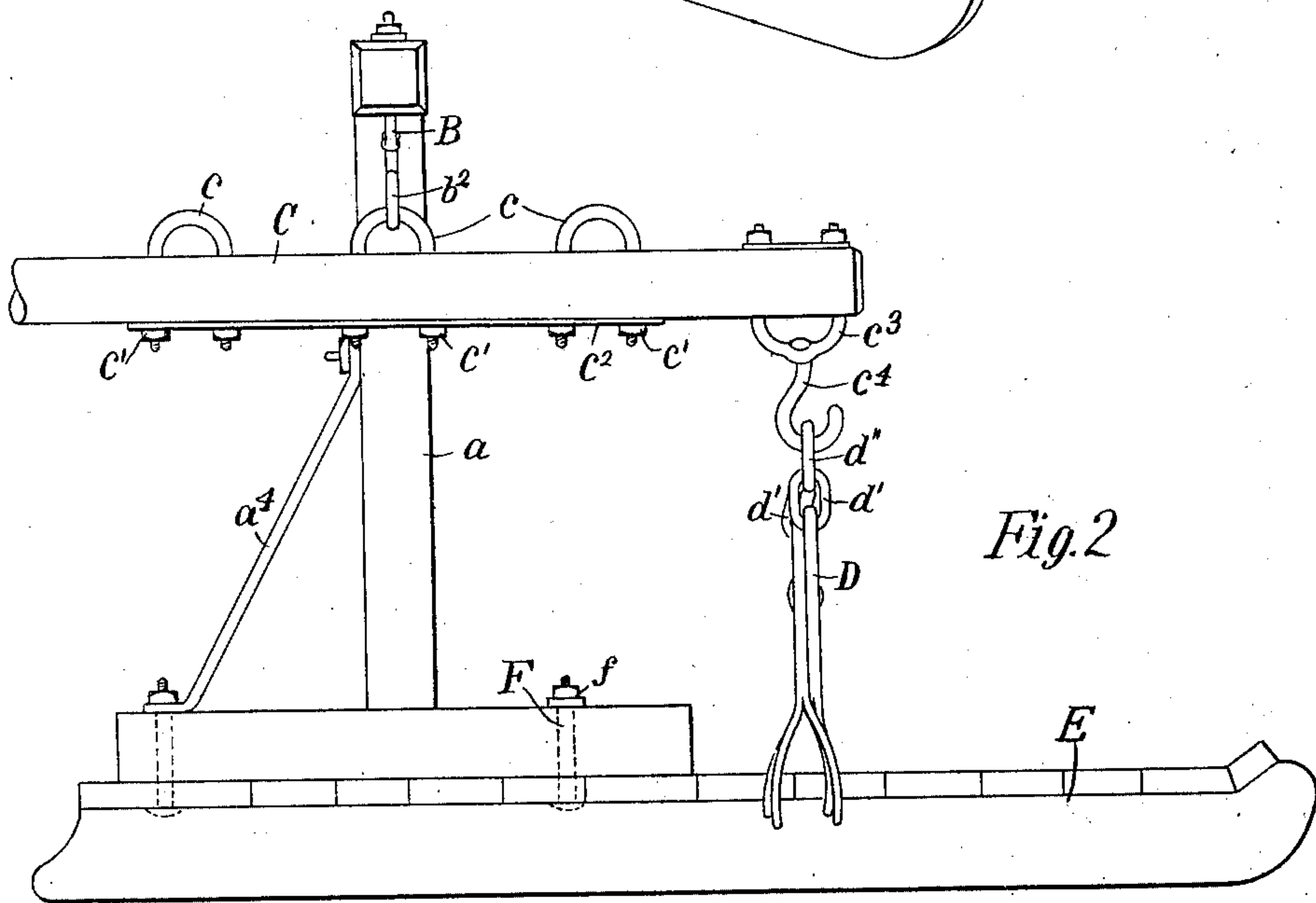
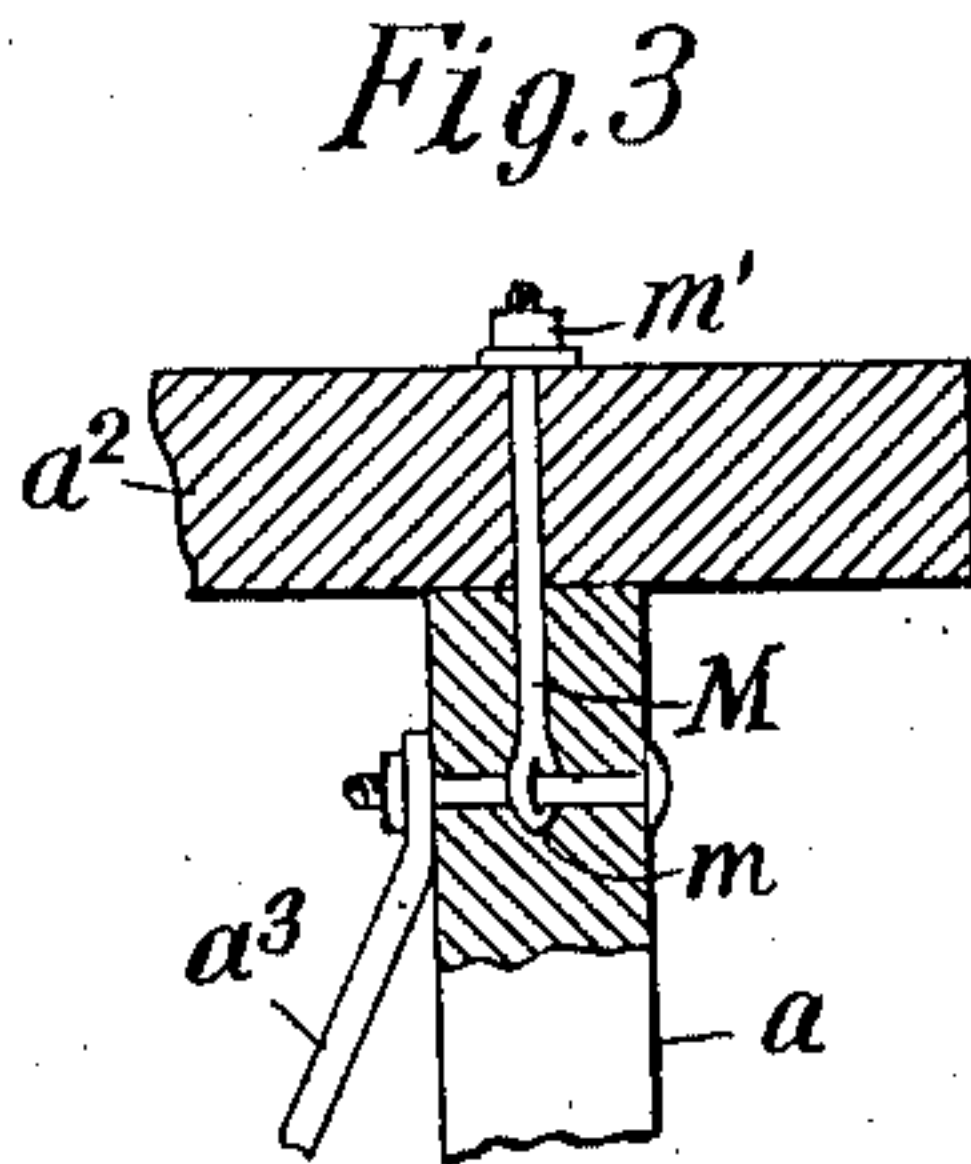
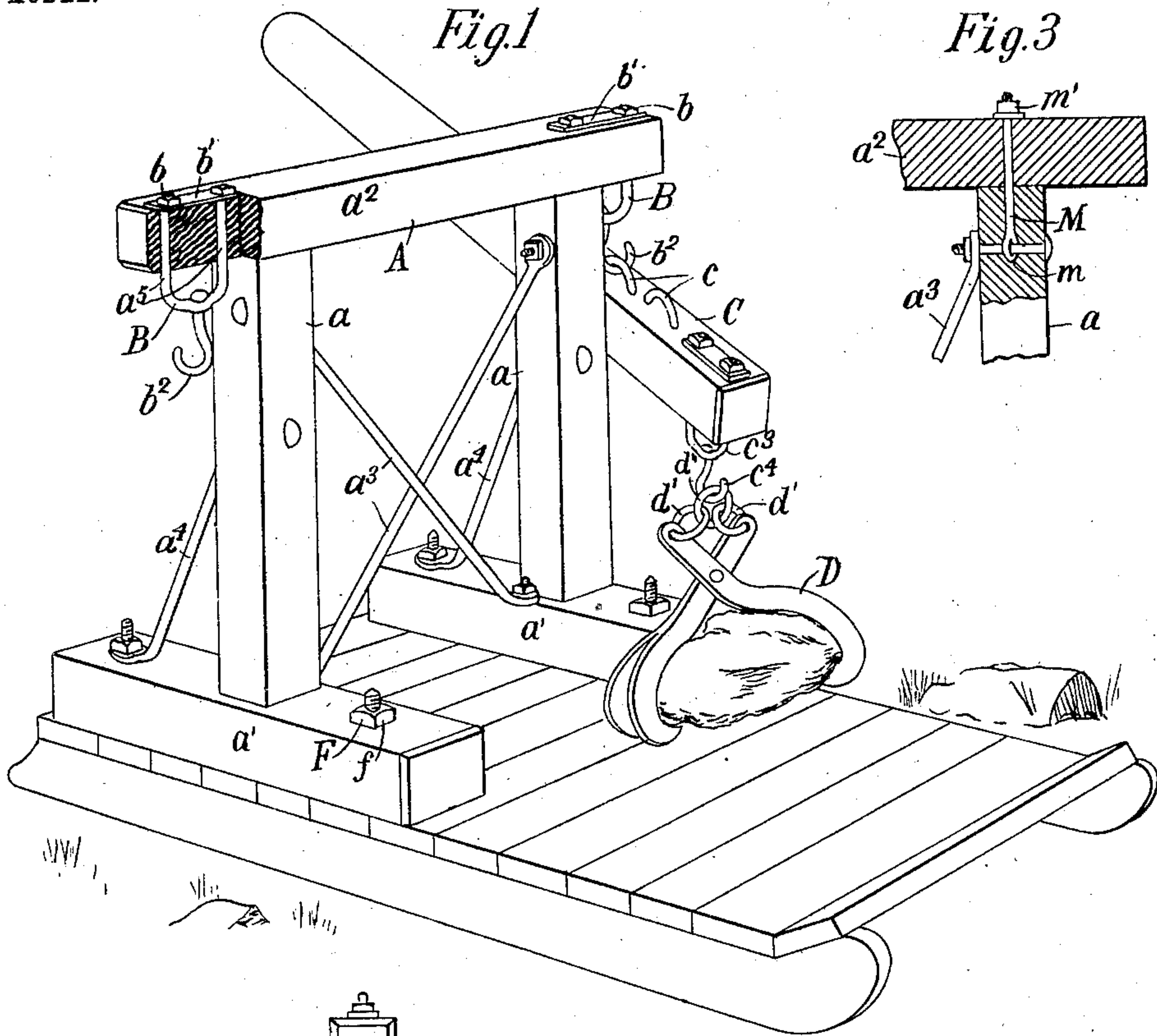


No. 731,933.

PATENTED JUNE 23, 1903.

J. P. MORAN.
APPARATUS FOR REMOVING STONES.
APPLICATION FILED JULY 31, 1902.

NO MODEL.



Witnesses:

Wm B. Kerne
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UNITED STATES PATENT OFFICE.

JOHN PATRICK MORAN, OF ROCKINGHAM, CANADA.

APPARATUS FOR REMOVING STONES.

SPECIFICATION forming part of Letters Patent No. 731,933, dated June 23, 1903.

Application filed July 31, 1902. Serial No. 117,880½. (No model.)

To all whom it may concern:

Be it known that I, JOHN PATRICK MORAN, of Rockingham, Brudenell township, Renfrew county, Ontario, Canada, have invented a new and useful Apparatus for Removing Stones, which is fully set forth in the following specification.

My invention relates to apparatus for removing stones or the like; and the object of the invention is to devise a contrivance which may be used in conjunction with a stone-boat or other vehicle on which it is desired to load stones or the like. By means of this apparatus one man may lift a stone which without my device would require several men to lift.

The invention consists, essentially, of the combination, with a suitably-supported frame, of a lever suspended therefrom and provided at its end with a suitable lifting or grappling device, the opposite (or long) end of said lever being adapted for use as a handle by the person operating the machine, the various parts of the apparatus being constructed and arranged in manner to be pointed out.

In the drawings annexed hereto to illustrate preferred embodiments of my invention, Figure 1 is a perspective view showing a stone being placed on a stone-boat. Fig. 2 is a side elevation of the apparatus, the lever being shown on the opposite side of that from which it hangs in Fig. 1; and Fig. 3 is a detail.

A is the frame, and C the lever. The frame is suitably supported on a stone-boat or other vehicle, and it consists, preferably, of two uprights *aa*, supported, respectively, by base-pieces *a' a'* and themselves supporting the horizontal cross-piece *a²*, whose ends project beyond the uprights *a*. Transverse braces *a³* and side braces *a¹* may be used to stiffen the frame. I prefer to secure cross-piece *a²* in place by means of a bolt *M*, inserted in the end of each upright *a* and provided at its inner end with an eye *m*, through which passes the clamping-bolt of brace *a³*, while bolt *M* extends up through the end of cross-piece *a²* and holds the latter firmly clamped, as by nut or the like *m'*. (See Fig. 3.)

At each projecting end of cross-piece *a²* is located means for supporting the lever, by preference a depending U-shaped clevis B,

whose arms may be secured, (preferably above a metal bearing-plate *b'*), as by nuts *b*, and in the bottom of which is swiveled a hook *b²*.

The lever C is suitably suspended from either of the hooks *b²* and carries at its lower end suitable lifting or grappling devices, as D. I find it desirable to suspend this lever detachably and adjustably, which may be conveniently accomplished by providing thereon a series of firmly-secured staples *c c*, one of which is engaged with either hook *b²*. A convenient lifting device comprises the two curved members pivoted together (to form tongs D) and provided, preferably, with double-pronged hooks, as shown, and suspended by means of links *d' d'* and ring *d''* from swiveled hook *c⁴*.

It will thus be seen that I have devised a very simple, cheap, and effective machine for assisting farmers and others in moving stones, as in clearing their land, &c. By using a suitable one of the loops *c* on the lever C the leverage of the stone which is being lifted may be made so small and the leverage of the operator so great that a very heavy stone may be lifted, and owing to the hooks being swiveled the weight may be swung off to any desired part of a stone-boat or other vehicle. In clearing land for farming a great difficulty has been to get rid of the stones, and although devices have been placed on the market for this purpose they have been so expensive that very few farmers could afford to buy a sufficient number to work with any speed. With my device, however, which is extremely cheap in construction and yet may be used for stones of very considerable size, it will be seen that this difficulty is practically removed.

It will be understood, of course, that I do not limit myself to the exact construction and arrangement herein set forth, since a number of various forms of frames may be used which would be almost, if not quite, as convenient as the one I have shown, and different means could be employed for suspending the lever from the frame and the lifting device from the lever without in any case departing from the spirit of my invention.

Having thus described my invention, I claim—

1. The combination with a suitable frame, of a swiveled hook or hooks suspended from said frame, a lever suspended from one of said swiveled hooks, another swiveled hook
5 suspended from the end of said lever, and a pair of hinged lifters suspended from said last-named swiveled hook, as and for the purpose specified.

2. The combination with a suitable frame
10 having a horizontal cross-piece, of U-shaped clevises secured to said cross-piece, hooks having swiveled connections with said clevises, a lever, means for suspending said lever from any one of said hooks, another U-
15 shaped clevis at the end of said lever, another hook having a swiveled connection with said last-named U-shaped clevis, and a hinged lifter suspended by links from said hook, as and for the purpose specified.

20 3. In an apparatus of the class described, the combination with the uprights and the cross-piece carried thereby, of a bolt for se-

curing the latter in place, a brace for each upright, and a second bolt securing the same to its upright and passing through an eye on
25 the inner end of said first-named bolt to secure the same in place, as and for the purpose described.

4. In a device of the class described, the combination with a stone-boat or other vehi-
30 cle, and an upright secured upon each side thereof with a cross-beam supported by the same to constitute a framework, of a plurality of bearings on said framework, and a lever carrying a grappling device at one end
35 and detachably and adjustably supported from any one of said bearings.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN PATRICK MORAN.

Witnesses:

CON MCGUIRE,

JOHN THOMAS FLEMING.