

No. 696,115.

Patented Mar. 25, 1902.

O. B. STILLMAN.
CONVEYING APPARATUS.

(Application filed June 14, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 2.

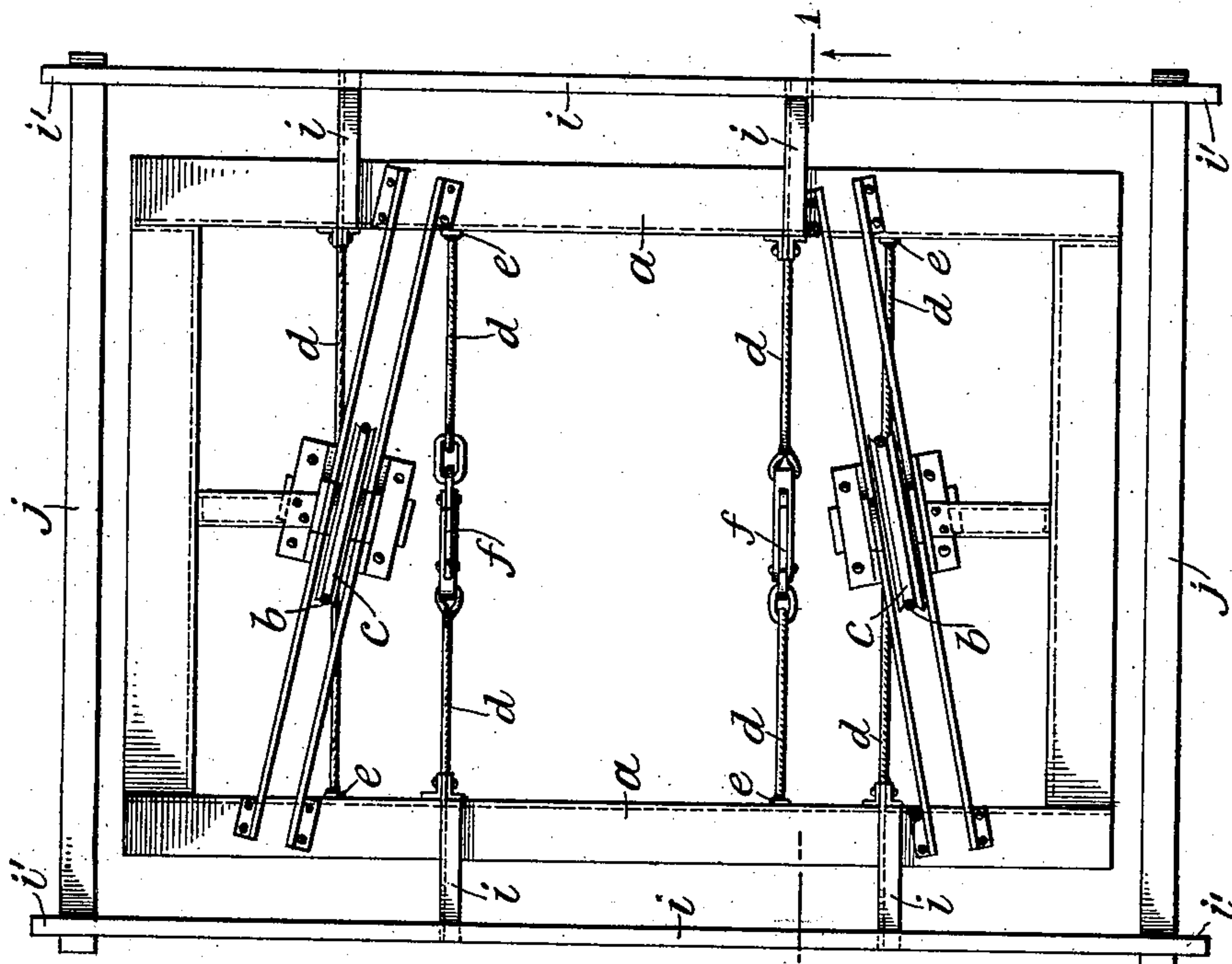
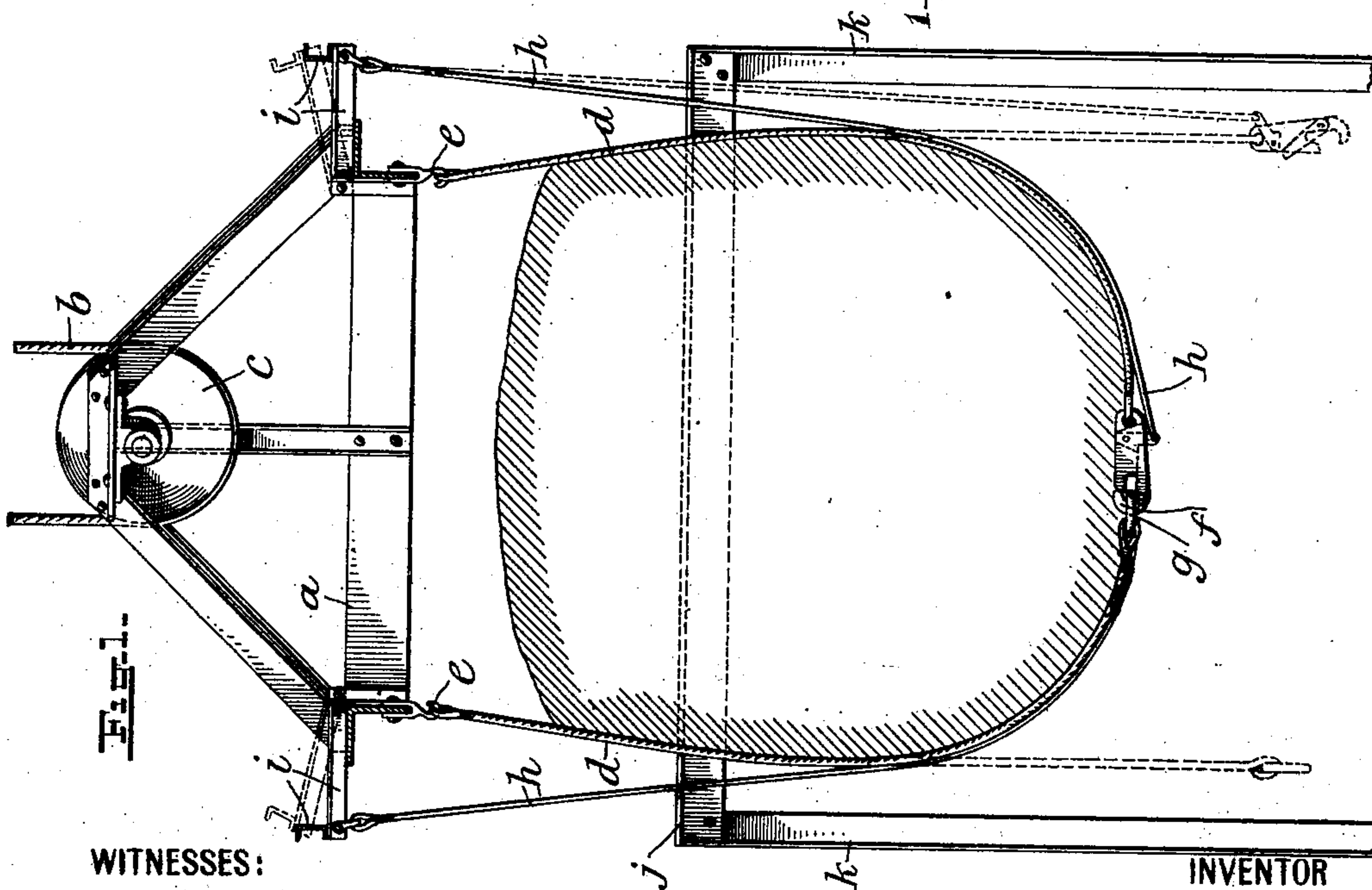


Fig. 1.



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Fig. 4.

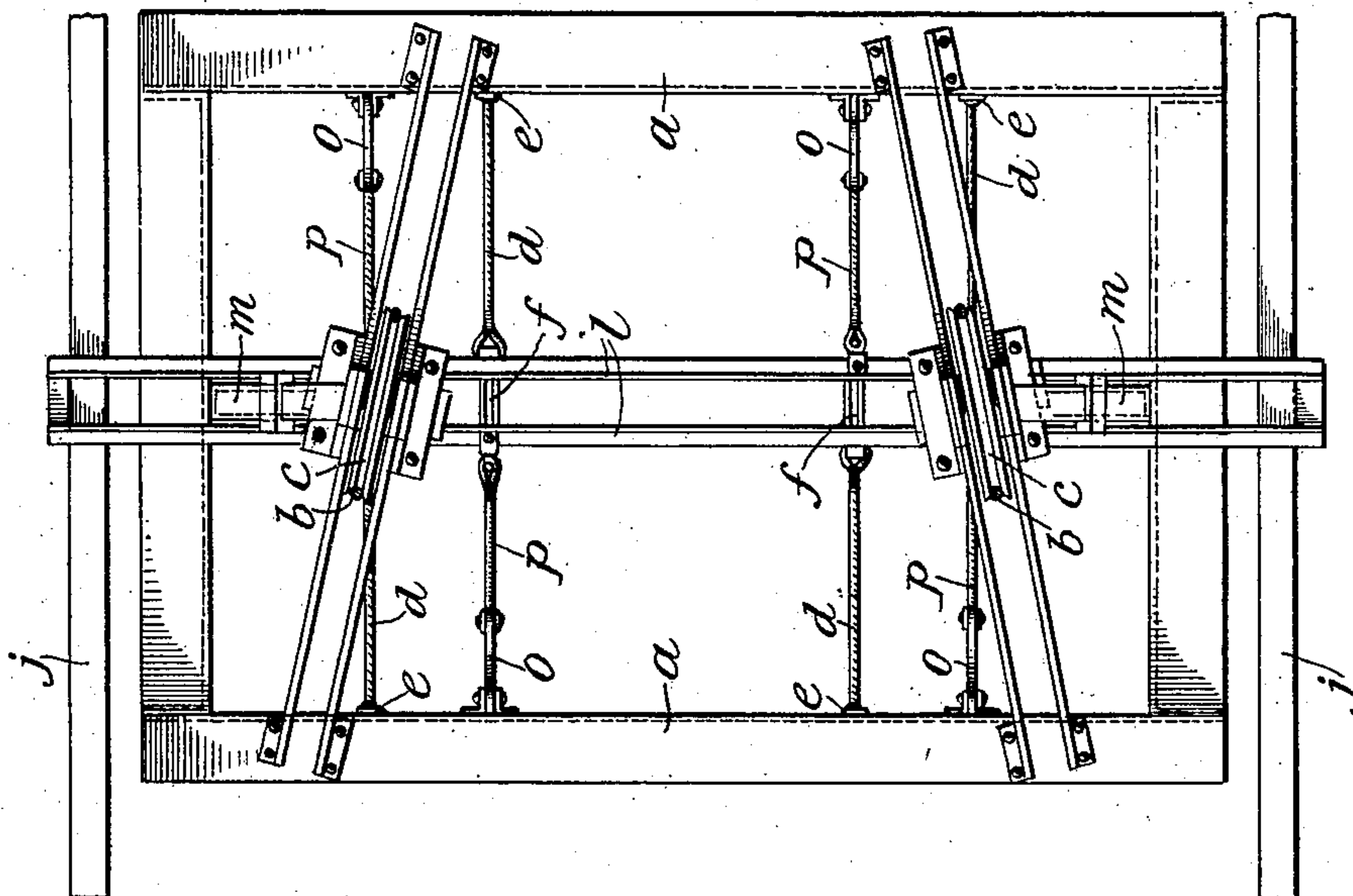


Fig. 3.

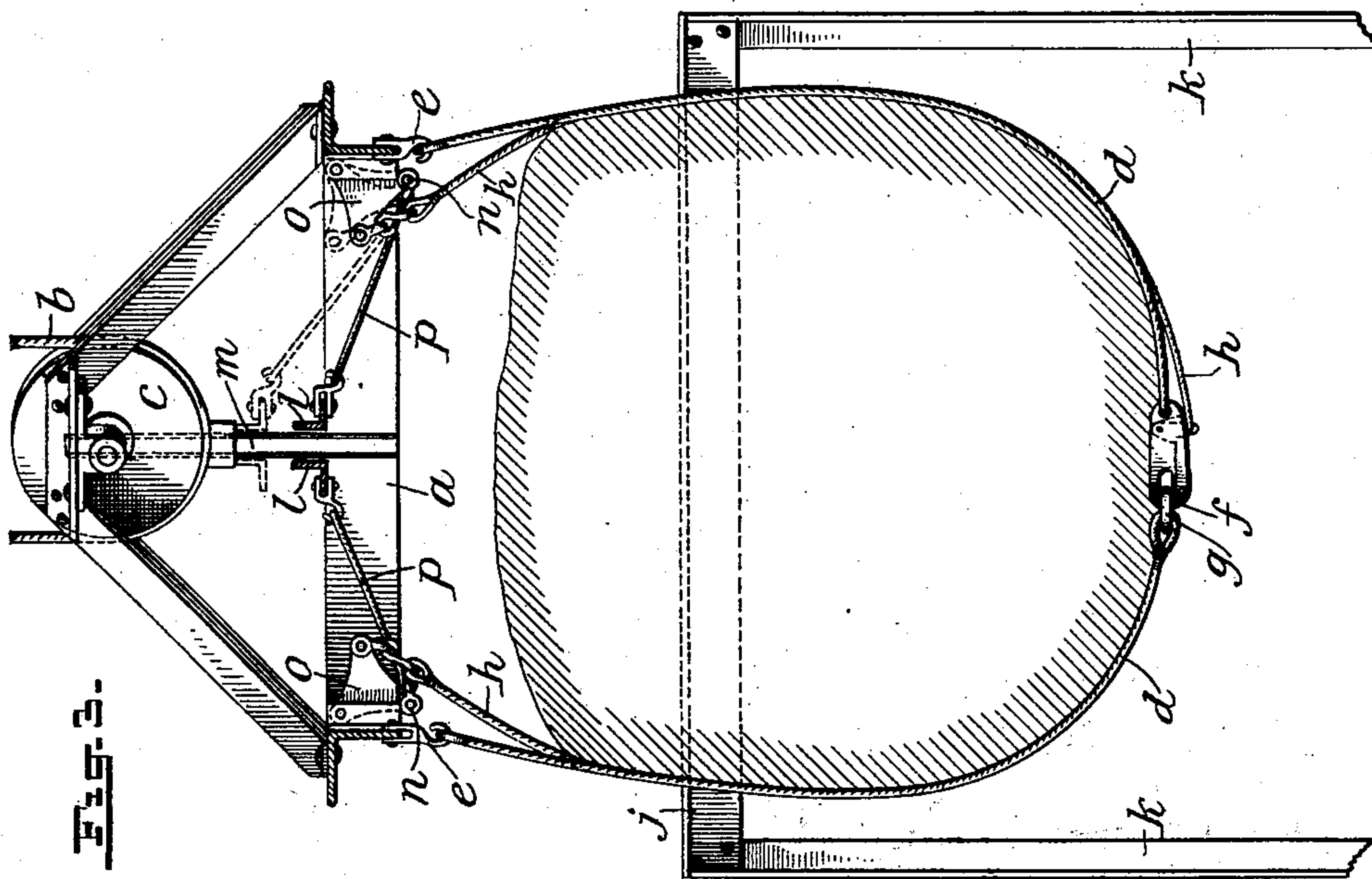
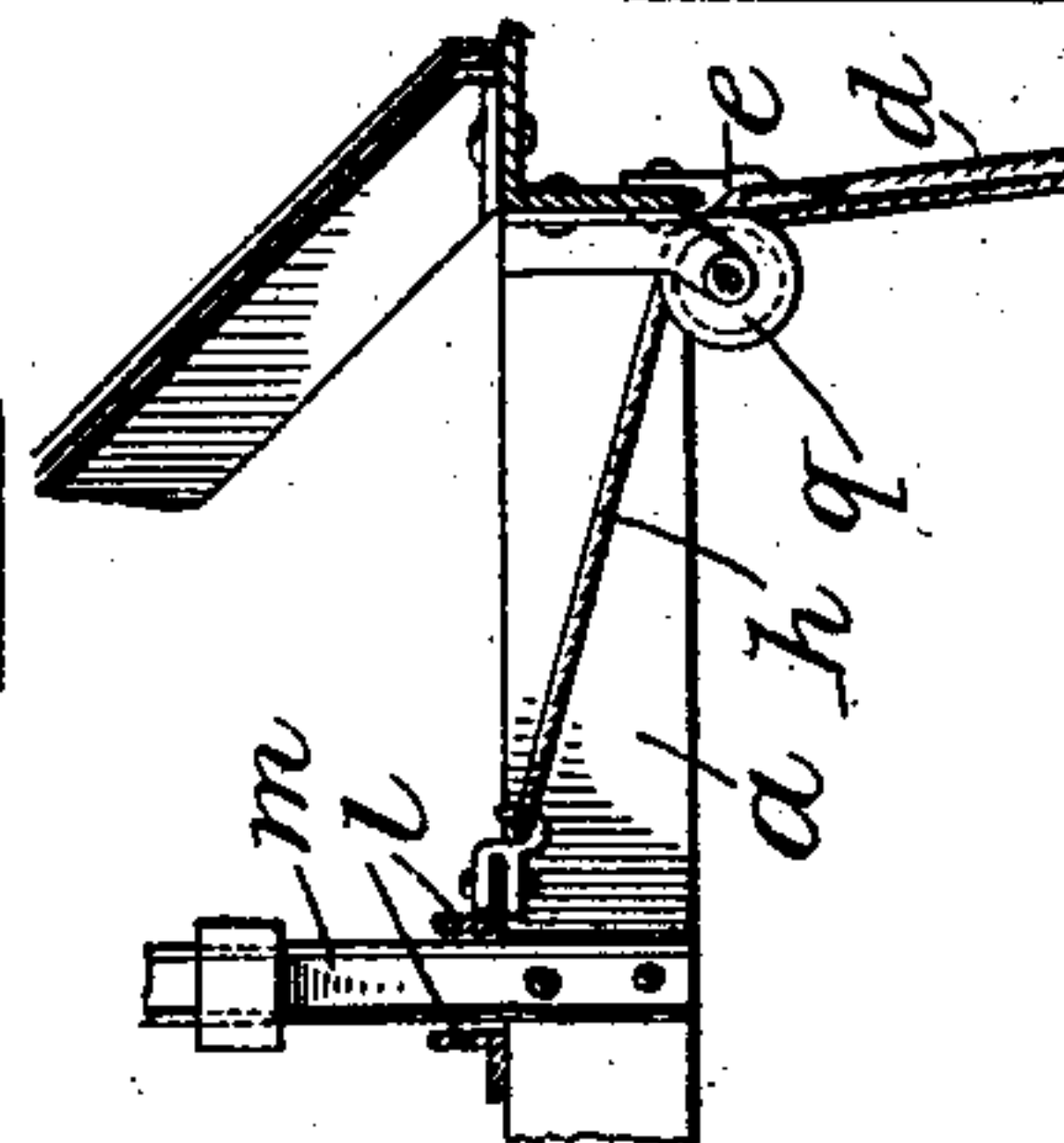


Fig. 5.



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UNITED STATES PATENT OFFICE.

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CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 696,115, dated March 25, 1902.

Application filed June 14, 1901. Serial No. 64,509. (No model.)

To all whom it may concern:

Be it known that I, OSCAR B. STILLMAN, a citizen of the United States, residing in the borough of Manhattan, city of New York, and State of New York, have invented certain new and useful Improvements in Conveying Apparatus, of which the following is a specification.

The invention relates particularly to apparatus for conveying sugar-cane and similar products; and it consists in providing said conveying apparatus with a plurality of independent slings or carriers, each comprising two parts detachably secured together at or near the middle of the carrier, so that they may be automatically released and the contents of the conveyer unloaded; and it also consists in the other new and novel features of construction and combinations of parts hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 represents a vertical section on the line 1 1 of Fig. 2 of a conveying apparatus embodying the invention. Fig. 2 represents a plan view of the apparatus. Fig. 3 represents a vertical section of a similar apparatus provided with a different form of releasing mechanism. Fig. 4 represents a plan view of the apparatus shown in Fig. 3. Fig. 5 is a detail view, partly in section, illustrating a modification of the construction.

The frame *a* of the apparatus may be of any desired shape and is supported by ropes or wires *b* passing over pulleys *c*, or in any other manner that will permit the apparatus to be raised and lowered. A plurality of slings or carriers *d*, that receive and hold the load, are suitably secured to the frame by hooks *e*. Each of said slings or carriers comprises two parts or strands, which are detachably connected together in any suitable manner at or about the middle of the carrier by a trip-hook *f*, provided on one of the parts, engaging with a ring *g*, provided on the other part. The trip-hooks are operated to release the rings by cords *h*, that are fastened at their opposite ends to a trip-bar or to trip-bars *i*, pivoted to the frame. Preferably the strands on each side are provided alternately with hooks and rings, in which case a trip-bar must be provided on each side of the frame. The trip-hooks that secure the parts of the slings

or carriers together are automatically released as the frame is lowered. To effect this, the ends *i'* of the trip-bars are extended a short distance beyond the ends of the frame, and stationary beams *j* are arranged in the path thereof, which are supported by posts or pillars *k* at the height at which it is desired to trip the carriers. The stationary beams are arranged a sufficient distance apart to permit the frame *a* to pass between them, and as the frame is lowered the ends of the trip-bars engage with said beams, whereby they are held stationary, and the further downward movement of the frame causes the cords, which are fastened to the trip-bars, to release the catches, thereby permitting the load to fall.

Instead of providing two trip-bars, one on each side of the frame, a single bar *l*, comprising two angle-irons movable on a brace or braces *m*, secured to the frame, as shown in Fig. 3, may be used. In this form of the apparatus the ends of the trip-cords may be fastened to the arms *n* of the bell-crank levers *o*, that are pivoted to the sides of the frame. Said levers are actuated by means of wires or cords *p*, secured to the trip-bar *l*, which is extended beyond the ends of the frame, so as to engage with the trip-beams as the frame is lowered, and thus release the carriers. If desired, the use of the bell-crank levers *o* can be avoided by substituting idlers or pulleys *q* therefor, as shown in Fig. 5, and securing the trip-cords directly to the trip-bar.

Heretofore various devices have been employed for conveying sugar-cane and similar products, all of which require the load to be released at a considerable height above the hopper or platform that receives the same. By this improved construction the load can be lowered until it is quite close to the hopper or platform before the parts of the carrier are detached, yet permit the free ends of the carriers to swing clear and out of the way of the falling load, so as not to become entangled therewith. It will be noted also that the carriers are released automatically and at any desired height, depending upon the position of the trip-beam.

It is obvious that various changes other than the ones herein pointed out, such as would readily occur to one skilled in the art,

may be made in the details of the construction of the apparatus as herein set forth without departing from the spirit of the invention.

I claim as my invention—

5 1. In a conveying apparatus, the combination of a frame, means for raising and lowering same, a carrier secured to said frame comprising two parts detachably connected at or near the middle thereof, and means for automatically detachingsaid parts when the frame
10 is lowered, substantially as described.

2. In a conveying apparatus, the combination with a frame, of a plurality of carriers secured to said frame, each carrier comprising
15 two parts detachably secured together at or near the middle thereof, a movable trip-beam and means operatively connected with said trip-beam for automatically detaching the parts of the carrier by the movement of
20 the frame, substantially as described.

3. In a conveying apparatus, the combination of a frame, means for raising and lowering same, a plurality of carriers secured to the frame, a detachable catch arranged at or
25 about the middle of each carrier, a trip-bar

operatively connected with said catch, and a stationary beam arranged in the path of the trip-bar to hold same stationary as the frame is lowered and thereby release the catch, substantially as described. 30

4. In a conveying apparatus, the combination with a frame and means for raising and lowering the same, of a plurality of carriers secured to the frame, each carrier comprising
35 two parts, a catch arranged at or about the middle of the carrier for holding said parts together, a trip-bar movably secured to the frame, a cord secured to said trip-bar and the catch whereby said catch may be released when the trip-bar is moved, and means for
40 automatically actuating the trip-bar and releasing the parts of the carrier when the frame is lowered, substantially as described.

In testimony whereof I sign this application, in the presence of two witnesses, this
45 22d day of April, 1901.

OSCAR B. STILLMAN.

Witnesses:

HORACE F. RUGGLES,
GEORGE KEISER.