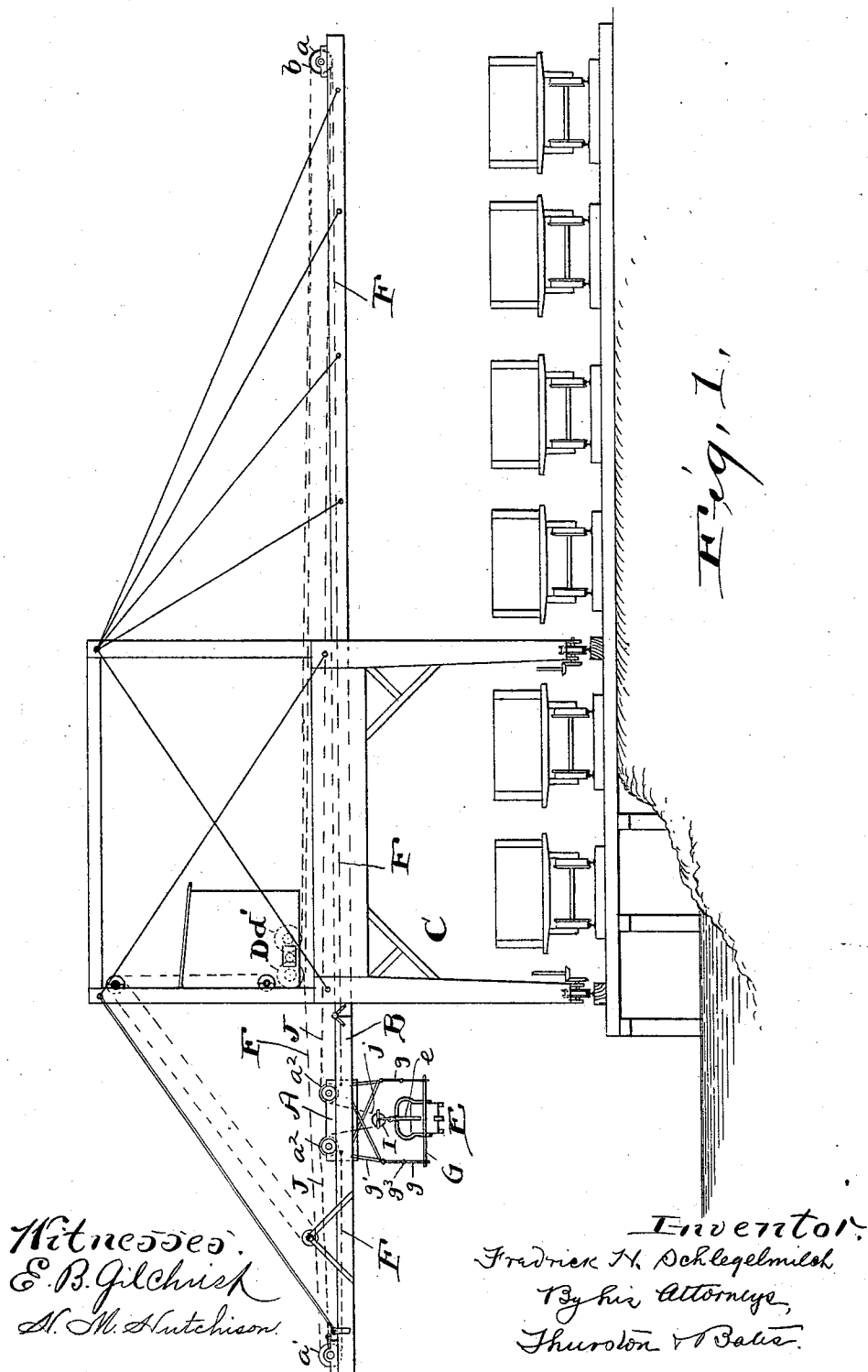


(No Model.)

2 Sheets—Sheet 1.

F. H. SCHLEGELMILCH.
BUCKET DUMPING DEVICE FOR HOISTING AND CONVEYING MACHINES.
No. 593,816. Patented Nov. 16, 1897.



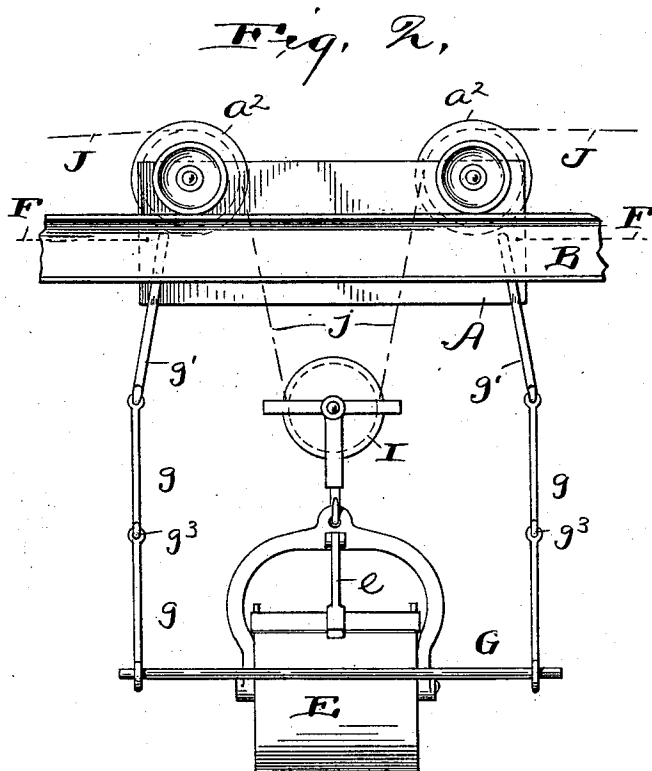
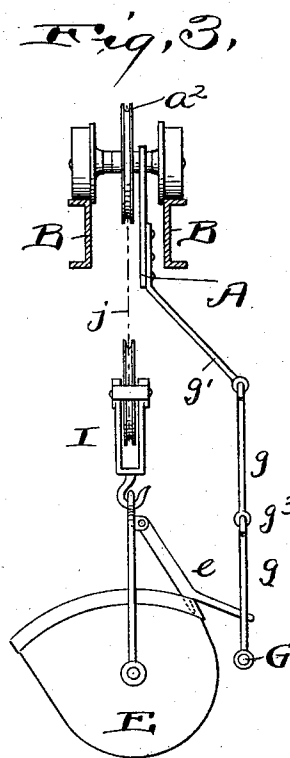
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2 Sheets—Sheet 2.

F. H. SCHLEGELMILCH.
BUCKET DUMPING DEVICE FOR HOISTING AND CONVEYING MACHINES.

No. 593,816.

Patented Nov. 16, 1897.



Witnesses:
E. B. Gilchrist
H. M. Hutchinson.

Inventor:
Frederick H. Schlegelmilch.
By his Attorney,
Thurston & Bates.

UNITED STATES PATENT OFFICE.

FREDRICK H. SCHLEGELMILCH, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO TIMOTHY LONG, OF SAME PLACE.

BUCKET-DUMPING DEVICE FOR HOISTING AND CONVEYING MACHINES.

SPECIFICATION forming part of Letters Patent No. 593,816, dated November 16, 1897.

Application filed March 19, 1897. Serial No. 628,284. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK H. SCHLEGELMILCH, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Bucket-Dumping Devices for Hoisting and Conveying Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in the class of hoisting and conveying machinery wherein a trolley is movable upon suitable supports and carries with it a suspended bucket, which may be raised or lowered regardless of the position of the trolley.

The object of the invention is to provide simple and effective means whereby the bucket may be caused to dump its contents at any desired point.

The invention consists in the construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of hoisting and conveying mechanism in which my invention is employed. Fig. 2 is an enlarged side elevation of my invention, and Fig. 3 is an end elevation of the parts shown in Fig. 2.

Referring to the parts by letters, A represents a trolley which is movable upon suitable elevated supports—as, for example, the horizontal tracks B B. These tracks are supported by a suitable trestle tower C. The trolley is moved along these tracks by means of the cable F, secured to opposite ends thereof and passing around the sheaves a a' at the ends of the tracks and thence to a winding-drum D.

The bucket E is hung from a sheave-block I, which is suspended in the loop j of the cable J, which cable is secured at one end to the end of the track structure and passes over the two sheaves a^2 a^2 on the trolley between which the loop j depends and thence around the sheave b at the other end of the track structure to a winding-drum d' . By winding up or unwinding cable J the bucket may be raised or lowered, but if the winding-drum is not

operated the elevation of the bucket is not disturbed by the movement of the trolley.

The parts thus described constitute a suitable apparatus with which my invention may be used. My dumping device may, however, be used with any other suitable apparatus.

The bucket E, as shown, is of a familiar type, and it is held in an upright position by a latch e , the downwardly-inclined outer end of which is extended laterally beyond the tripping-bar G. Any other type of bucket might be employed provided it had a releasing latch or lever adapted to be operated in substantially the manner described. This tripping-bar G is substantially horizontal and is parallel to the tracks B B. It is suspended upon the lower ends of two freely-swinging links g g , which are themselves hung from the two outwardly-bent bars g' g' . These bars g' g' depend from the trolley and are extended outward a suitable distance, whereby when the links hang vertically the bar G is in the proper position to engage with the latch. The links g g are each made of two sections connected by engaging eyes g^3 g^3 ; but this particular construction of the links is not material. It is only necessary that the links be so constructed and connected that the bar G may be swung freely outward.

The operation of the described mechanism is as follows: After a bucket is loaded it is drawn up to the proper elevation, the latch-lever passing and contacting with the bar G, which is thereby pushed back out of the way to allow said latch to pass above it. Then when the trolley is moved along the tracks the releasing mechanism goes with it. At any point in the travel of the trolley the bucket may be lowered. Its latch-lever catches on the top of bar G, whereby the lever is drawn back and the bucket released therefrom. The bucket dumps itself, and when it is raised its latch again pushes the bar G back out of the way.

Among the advantages of the construction are the following: The releasing mechanism is always in position to perform its function regardless of the position of the trolley, it does not have to be adjusted to dump the bucket at any particular point, and it does not interfere with the elevation of the bucket

at any point, whether the bucket be empty or loaded.

Having described my invention, I claim—

1. In a hoisting and conveying machine, the
5 combination of a movable trolley, a bucket
suspended from said trolley, and means for
raising and lowering said bucket, with a latch
for the bucket, and a tripping device sus-
pended from the trolley and adapted to engage
10 with and operate said latch when the bucket
is being lowered, substantially as and for the
purpose specified.

2. In a hoisting and conveying machine, the
combination of a movable trolley, a bucket
15 suspended from said trolley, and means for
raising and lowering said bucket, with a latch-
lever for the bucket, and a swinging releas-
ing device suspended from the trolley and
adapted to engage with and operate said latch-

lever when the bucket is being lowered, sub- 20
stantially as and for the purpose specified.

3. In a hoisting and conveying machine, the
combination of a movable trolley, a bucket
suspended from said trolley, and means for
raising and lowering said bucket, with a latch- 25
lever projecting laterally beyond the bucket,
two freely-swinging links suspended from
the trolley, and a horizontal bar supported
by said links in the path of said latch-lever
when the bucket is raised or lowered, sub- 30
stantially as and for the purpose specified.

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

FREDRICK H. SCHLEGELMILCH.

Witnesses:

ALBERT H. BATES,
E. B. GILCHRIST.