

No. 839,858.

PATENTED JAN. 1, 1907.

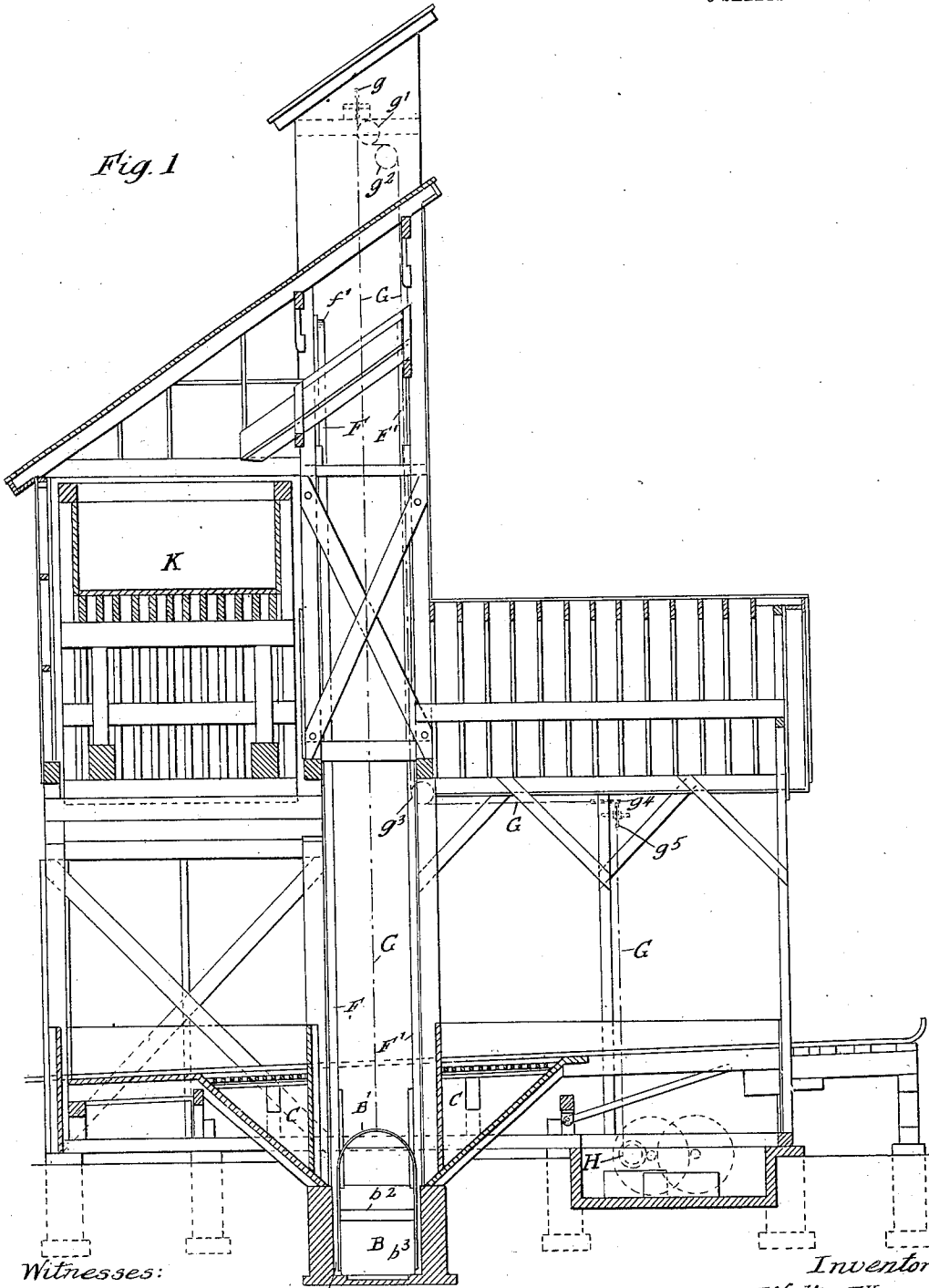
W. T. KRAUSCH.

AUTOMATIC DUMPING AND RIGHTING HOISTING BUCKET.

APPLICATION FILED FEB. 26, 1906.

3 SHEETS—SHEET 1.

Fig. 1



Witnesses:

Wm. Geiger  
J. M. Cofanover.

By

Inventor.  
Walter T. Krausch

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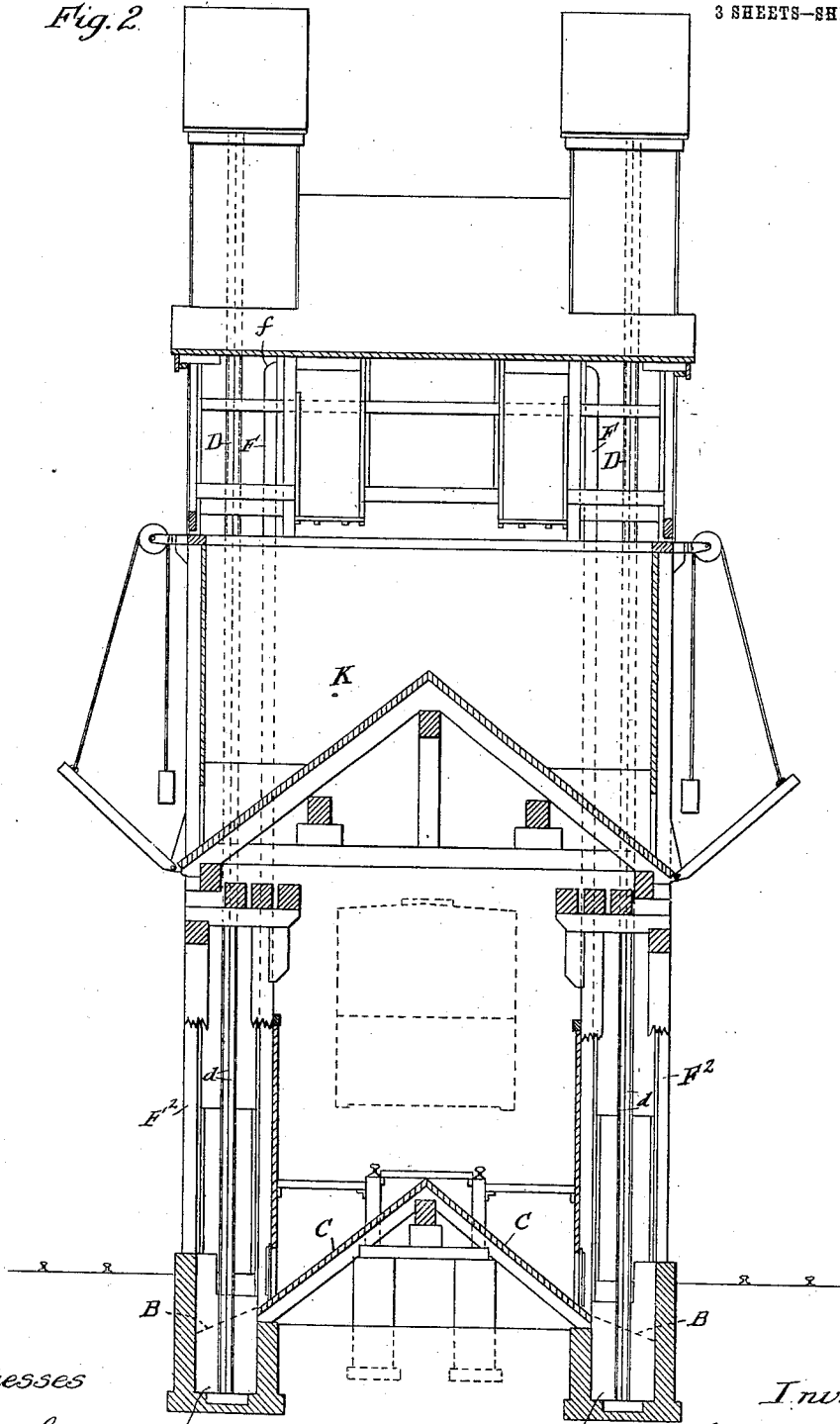
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3 SHEETS—SHEET 2.

Fig. 2



Witnesses

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A. W. Hundley

Inventor:

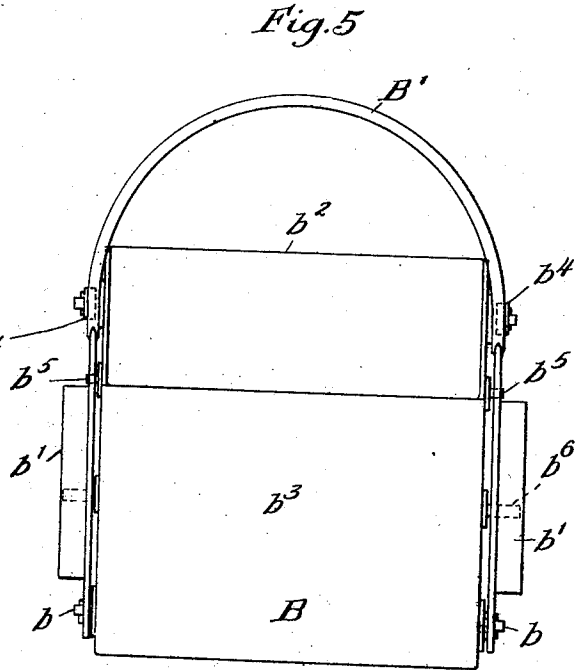
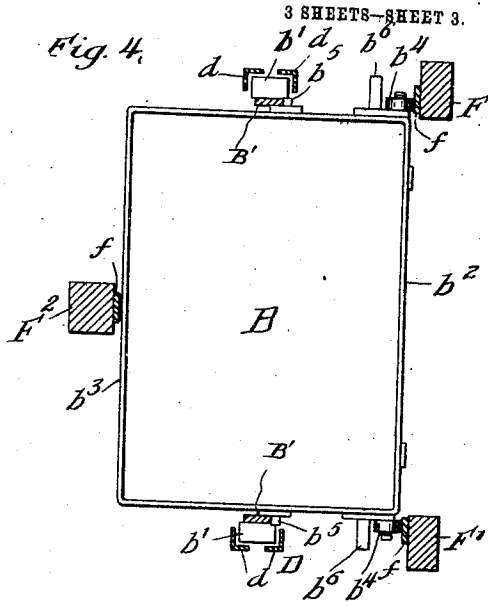
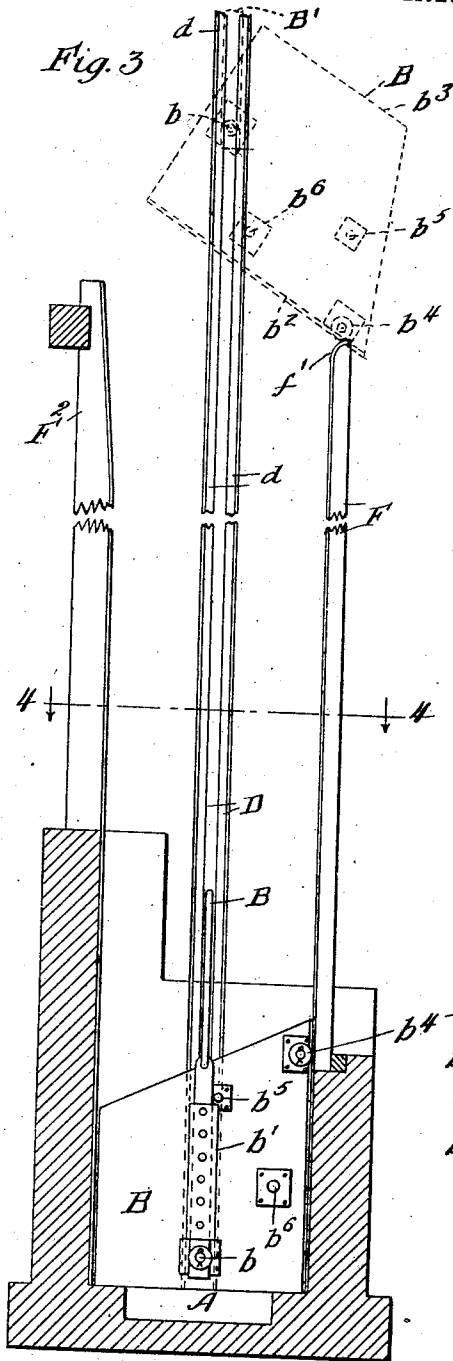
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Witnesses:

Wm. Geiger  
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# UNITED STATES PATENT OFFICE.

WALTER T. KRAUSCH, OF LA GRANGE, ILLINOIS.

## AUTOMATIC DUMPING AND RIGHTING HOISTING-BUCKET.

No. 839,858.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed February 26, 1906. Serial No. 302,618.

To all whom it may concern:

Be it known that I, WALTER T. KRAUSCH, a citizen of the United States, residing in La Grange, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Automatic Dumping and Righting Hoisting-Buckets, of which the following is a specification.

My invention relates to hoisting and dumping buckets, and more particularly to hoisting and dumping buckets for use in connection with railway coaling stations or apparatus for unloading coal from cars and loading it into engine-tenders or other cars.

The object of my invention is to provide a hoisting and dumping bucket of a simple, efficient, and durable construction and which will be automatic in dumping and also in righting itself.

My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described, and more particularly specified in the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation, partly in vertical section, of an automatic dumping and righting hoisting-bucket embodying my invention. Fig. 2 is a front elevation partly in vertical section. Fig. 3 is an enlarged detail elevation partly in vertical section. Fig. 4 is a cross-section on line 4 4 of Fig. 3. Fig. 5 is a detail elevation of the bucket.

In the drawings, A represents the bucket well or pit into which the bucket B descends to receive the load from the car, unloading-hopper, or chute C. The automatically-dumping and self-righting elevator-bucket B is furnished with a bail B', pivotally connected thereto by pins or pivots *b* below or slightly to one side of the center of gravity of the bucket. The bail B' of the bucket is furnished with guide-blocks *b'*, preferably of wood rigidly secured thereto and which work up and down in suitable guides D, each preferably formed of angle-irons *d d*. The bucket B travels up and down between suitable guides or uprights F F' F<sup>2</sup>, preferably of wood and furnished with metal strips or rails *f*. The front wall *b<sup>2</sup>* of the bucket B is made higher or deeper than its rear wall *b<sup>3</sup>*, so that the front of the bucket whether loaded or unloaded will always be the heavier side thereof. The bucket guides or uprights F

F' at the front side of the bucket are furnished with rounded or curved upper ends *f'* to facilitate the tilting or dumping of the bucket when raised to the required position.

The bucket B is furnished with rollers *b<sup>4</sup>* to bear against the front guide-rails *f* on the guides or uprights F F'. The bucket B is also furnished with a stop-pin *b<sup>5</sup>* to engage the bucket-bail B', and thus limit the tilting movement of the bucket when it rights itself, and also with stop pins or shoulders *b<sup>6</sup>* to engage the bucket-bail guides F F' and limit the tilting movement of the bucket in case it should be raised too high, so that the front upper edge of the bucket might otherwise fall inside the front guides or uprights F F' for the bucket. As the bucket B is hung by its bail, which travels in upright guides, and as the pivot of the bail is set below and to one side of the center of gravity of the bucket, the bucket is self-dumping as well as self-righting, and the front side or face of the bucket in its up-and-down movement is thus also caused to hug the front bucket guides or uprights F F' and also to hug the front face of the bucket pit or well A, so that the coal will discharge from the inclined chute or unloading-hopper into the bucket without wasting or spilling or filling up the pit with coal, and thus interfering with the proper operation of the apparatus.

G is a cable for operating the bucket from the winding-drum H, the bucket-cable passing over or around suitable pulleys *g g' g<sup>2</sup> g<sup>3</sup> g<sup>4</sup> g<sup>5</sup>*.

K represents the loading-hopper, into which the coal is discharged by the bucket B and by which the coal is delivered into the engine-tender or other receptacle desired.

I claim—

1. The combination with an elevator-bucket, of upright guides therefor, a bail pivoted to the bucket below and to one side of the center of gravity, a drum, cable and pulleys for operating the bucket, upright guides for the bail of the bucket, rollers on the bucket engaging the front upright guides for the bucket, and a stop on the bucket engaging the bucket-bail guide to limit the dumping, tilting movement of the bucket, substantially as specified.

2. The combination with an elevator-bucket, of upright guides therefor, a bail pivoted to the bucket below and to one side of the center of gravity, a drum, cable and pul-

leys for operating the bucket, upright guides  
for the bail of the bucket, rollers on the  
bucket engaging the front upright guides for  
the bucket, stops on the bucket engaging the  
5 bucket-bail guides to limit the dumping  
tilting movement of the bucket, and stops  
on the bucket engaging the bucket-bail to

limit the righting tilting movement of the  
bucket, substantially as specified.

WALTER T. KRAUSCH.

Witnesses:

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