

No. 890,954.

PATENTED JUNE 16, 1908.

E. F. BALDWIN.
EXCAVATING AND LOADING DEVICE.

APPLICATION FILED SEPT. 13, 1907.

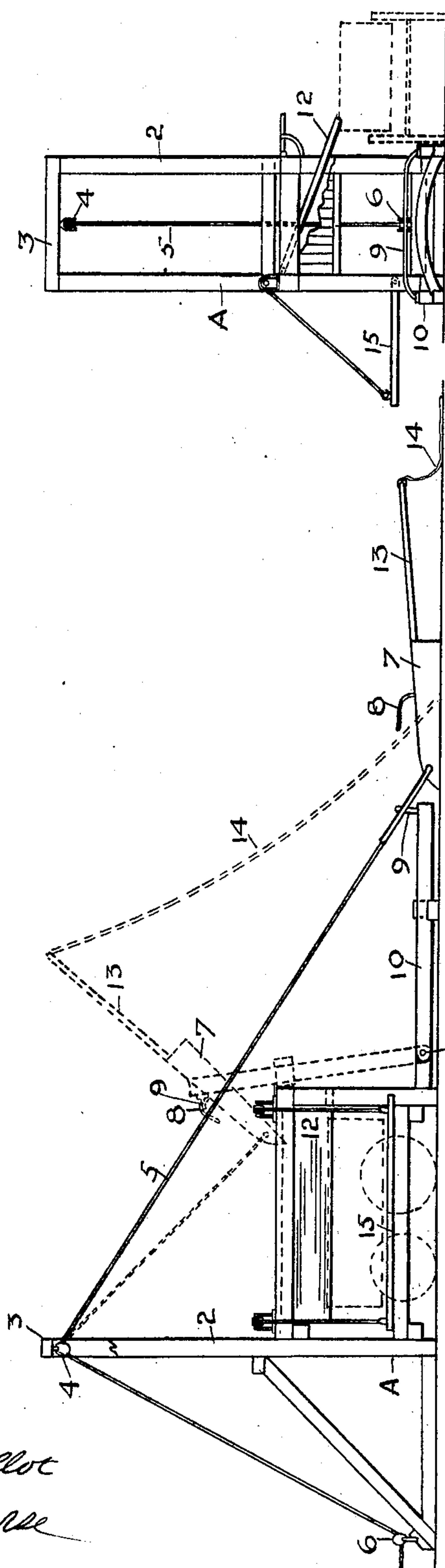


FIG. 2

FIG. 1

WITNESSES

Leon Boillot
[Signature]

INVENTOR

Emerson F. Baldwin
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UNITED STATES PATENT OFFICE.

EMERSON F. BALDWIN, OF SAN FRANCISCO, CALIFORNIA.

EXCAVATING AND LOADING DEVICE.

No. 890,954.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed September 13, 1907. Serial No. 392,775.

To all whom it may concern:

Be it known that I, EMERSON F. BALDWIN, citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Excavating and Loading Devices, of which the following is a specification.

My invention relates to an apparatus for excavating and conveying earth, sand, gravel, or the like.

Its object is to provide a simple, substantial apparatus for excavating and loading purposes, whereby the earth may be scooped up, elevated, and dumped into a bin or vehicle in one operation, and by a single scoop.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is an end elevation.

A represents a frame-work of suitable size, shape and material. One end of the frame is provided with the uprights 2 carrying a cross-bar 3, which supports a guide sheave or pulley 4. A cable 5 passes over the pulley 4 and around a lower direction sheave 6 to connect with any suitable source of power. To the other end of the cable is attached the scraper 7.

The scraper is adapted to be pulled to a suitable distance from the frame, and in line therewith, and when power is applied to the cable the scraper gathers up its load and approaches the end of the frame A opposite to the uprights 2. On the scraper being drawn in, a pair of hooks 8 on the scraper are intercepted by a cross-bar 9 on a radius frame 10, which latter is suitably pivoted to the structure A at 11.

The length and form of the radius frame 10 are such that on the cable 5 continuing to be pulled in, the scraper will be lifted from its horizontal position, shown in full lines, Fig. 1, to its dotted line position, with the radius frame intercepted in its upward movement by a suitable stop, as the adjacent end of the frame A. By slacking up then on the cable, the scraper will automatically dump its load into a hopper 12, by which the material is delivered at suitable intervals into a wagon alongside.

The scraper is provided with a handle 13 to which is attached a cord 14, by which the

scraper and radius frame may be pulled back after dumping, to initial horizontal position, the scraper then being dragged away to the point of loading.

The apparatus may be mounted on skids or rollers, to permit its position to be readily changed.

If desired, the frame may be provided with one or more laterally extending platforms or aprons 15 on which rock or ballast may be piled to give steadiness and rigidity to the structure.

The invention is particularly applicable for ditching purposes, or excavating in a straight line, but manifestly it may be used in many other connections; and I do not wish to be understood as limiting myself to any particular class of work, or specific form of construction of the apparatus.

The object of the scraper handle is to prevent premature dumping. As the scraper rises, the operator holds the rope tight to prevent its tipping forward.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. The combination of a frame, a scraper independent of and movable relatively to the frame, a cable attached to the scraper and passing over suitable direction pulleys on the frame, and means including a radius member pivoted to the frame and movably positioned to interrupt the scraper as the latter is moved toward it, and devices on the scraper engageable with said radius member, whereby, on the winding up of the cable, the scraper will be lifted into dumping position over the frame.

2. In an excavating apparatus, the combination of a suitable supporting structure, a radius frame pivoted to the said structure, a scraper, a cable connected with the scraper and adapted to move the same from a distant point towards the structure, said radius frame adapted to interrupt the said movement of the scraper, and means on the scraper to engage the radius frame, whereby on the winding up of the cable the scraper and frame will rise in unison into dumping position.

3. In an excavating apparatus, a frame-work having a hopper, uprights at one end of the frame-work, a guide sheave supported by said uprights, a cable passing over said guide sheave and around other direction sheaves, a scraper connected with the cable,

a radius frame pivoted to the frame-work, hook members on the scraper interceptable by the radius frame when the cable is wound up, and means to limit the upward movement of the radius frame, whereby on the
5 slacking of the cable, with the radius frame and scraper in elevated position, the scraper will automatically dump into said hopper.

In testimony whereof I have hereunto set my hand in presence of two subscribing 10 witnesses.

EMERSON F. BALDWIN.

Witnesses:

S. H. NOURSE,
C. A. PENFILD.