No. 809,674. PATENTED JAN. 9, 1906.

W. B. ERSKINE.

CRANE.

APPLICATION FILED MAR. 14, 1905.

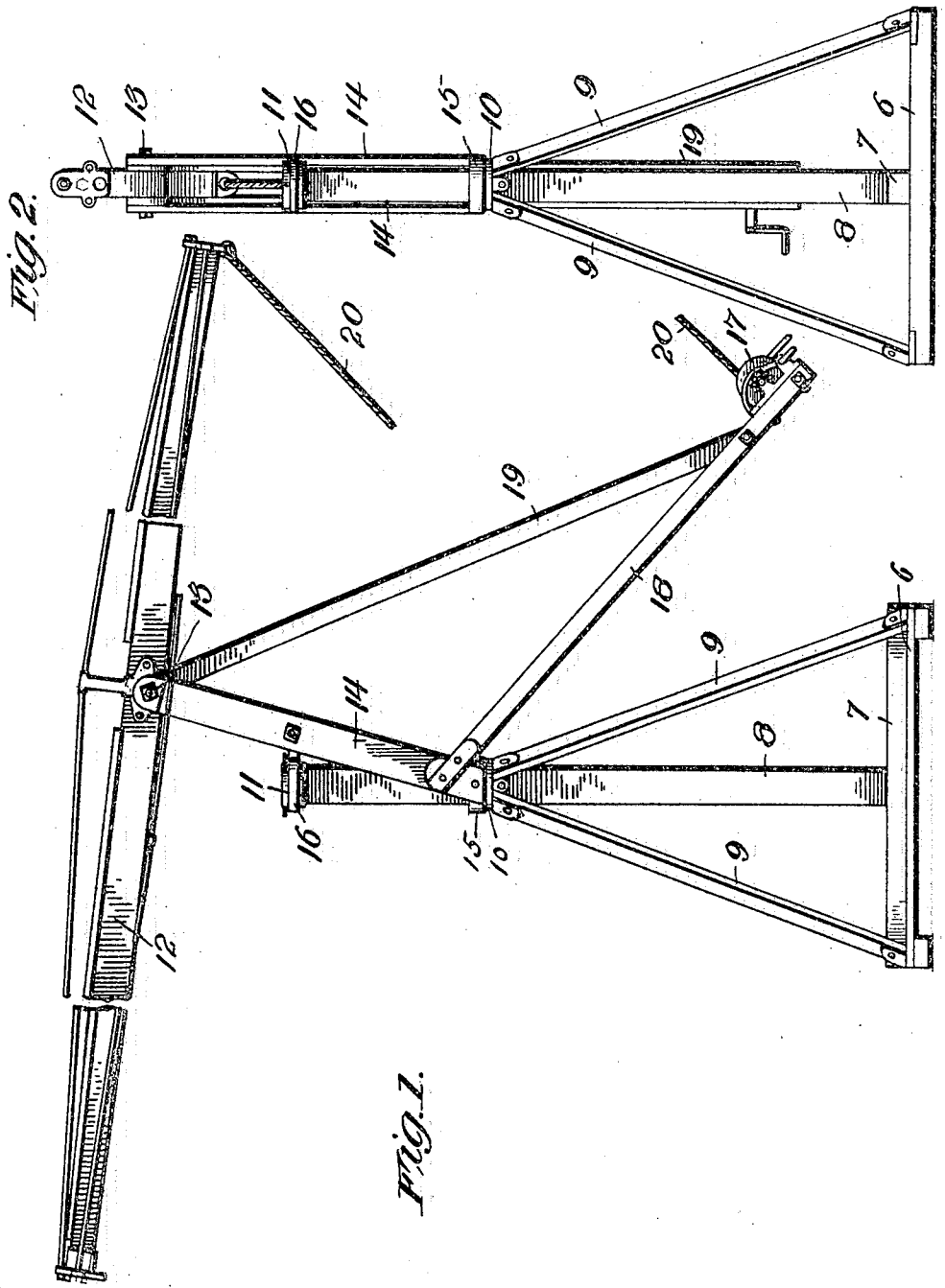

Fig. 2.

Fig. 1.

WITNESSES:

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CRANE.

No. 809,674. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed March 14, 1905. Serial No. 250,002.

To all whom it may concern:

Be it known that I, WILLIAM B. ERSKINE, a citizen of the United States, residing at Madison Mills, in the county of Fayette and State of Ohio, have invented new and useful Improvements in Cranes, of which the following is a specification.

This invention is a crane designed especially for portable use, and characterized particularly by improvements in the manner of supporting a swinging boom which will permit heavier loads to be lifted without tilting or upsetting the structure than would otherwise be the case.

In the accompanying drawings, Figures 1 and 2 are respectively side and front elevations of the crane.

Referring specifically to the drawings, the base of the crane consists of a squared frame formed of sills 6, across the middle of which extends a center sill 7, upon which the post 8 is mounted. This post is supported by braces 9, extending from each corner of the base to a casting 10, through which the post 8 extends. At the top the post has a bearing-casting 11.

The boom is indicated at 12, and it is pivoted at 13 between the upper ends of side pieces 14, which rest upon a ring 15, fitting upon the shoulder of the casting 10.

16 indicates a ring, which fits upon the top bearing 11 and is connected to the bars 14 between the ends thereof.

The winch 17 is carried at the outer ends of arms 18, secured to and projecting from the pieces 14 and braced by bars 19 extending to the pivot 13. The rope 20 of the winch is connected to the rear end of the boom.

It is to be noticed particularly that the pieces 14, which support the boom, are inclined to one side or backwardly from the vertical, so that the pivotal point of the boom is not directly over the center of the frame 6—that is, it is not in line with the post 8—but is off to the rear thereof, bringing the center of gravity toward the rear side of the base-frame during the lifting operation, giving the effect of a backwardly-inclined fulcrum-post, causing the weight of the boom and frame to pull against or tend to counterbalance the weight being lifted, so that there is less tendency to tip or upset the crane. This is an impotant feature in light or portable cranes, the bases of which cannot well be fastened to the ground or other foundation.

As is apparent from the drawings, the boom and winch and their supporting-frame are rotatable around the post 8. The main bearing-weight comes on the ring 15 and casting 10, and inasmuch as the latter rests directly upon the braces 9 the pressure is transmitted directly to said braces with less strain on the post than would otherwise be the case.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a crane, in combination, a post, a rotatable frame mounted on the post and having uprights inclined backwardly from the perpendicular, a boom fulcrumed on top of said uprights, and a winch carried by the frame and having its rope connected to the boom.

2. In a crane, in combination, a post having upper and lower bearings, a frame rotatably supported on said bearings and having uprights extending above the top of the post and inclined backwardly from the perpendicular, a boom fulcrumed on top of the uprights, and a winch carried by the frame and connected to the boom.

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

WILLIAM B. ERSKINE.

Witnesses:

LILLIE HENKLE,

E. L. BLAIN.