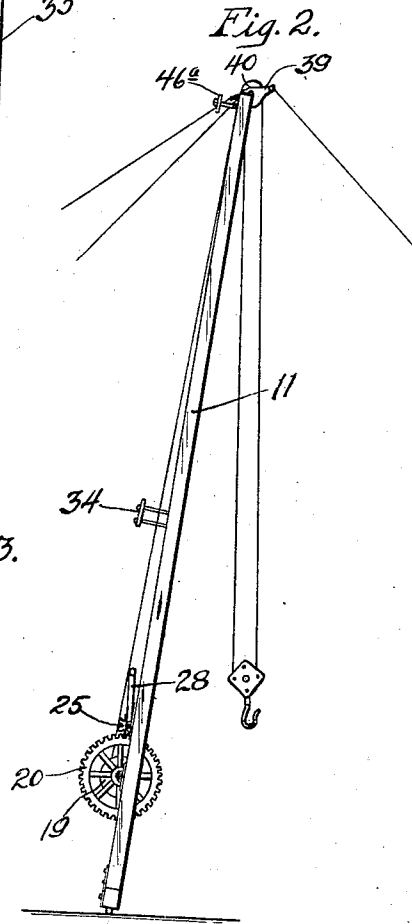
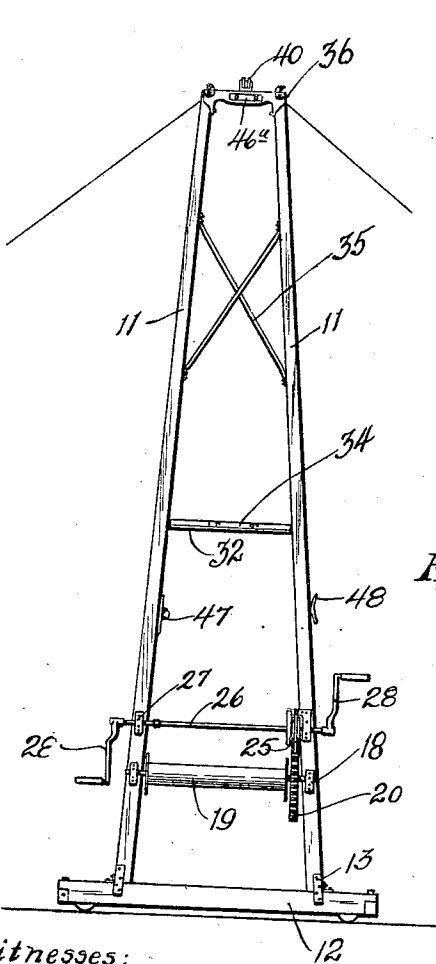
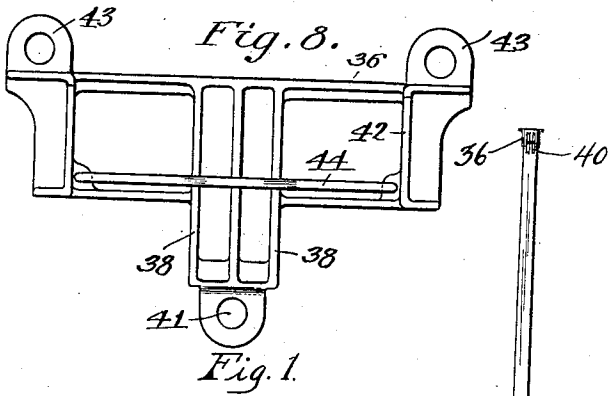


M. J. SASGEN.
 DERRICK.
 APPLICATION FILED MAY 9, 1910.

988,035.

Patented Mar. 28, 1911.
 2 SHEETS-SHEET 1.



Witnesses:
 Ephraim Banning
 Mary A. Frost.

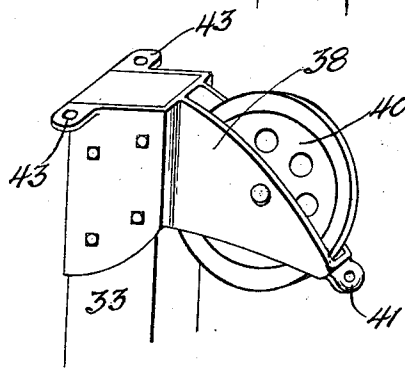
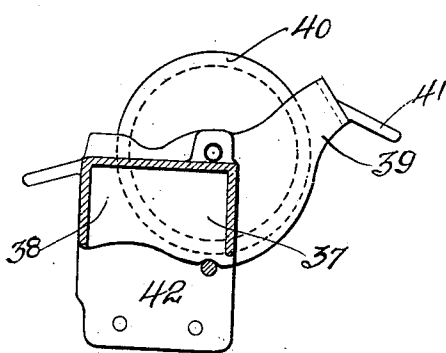
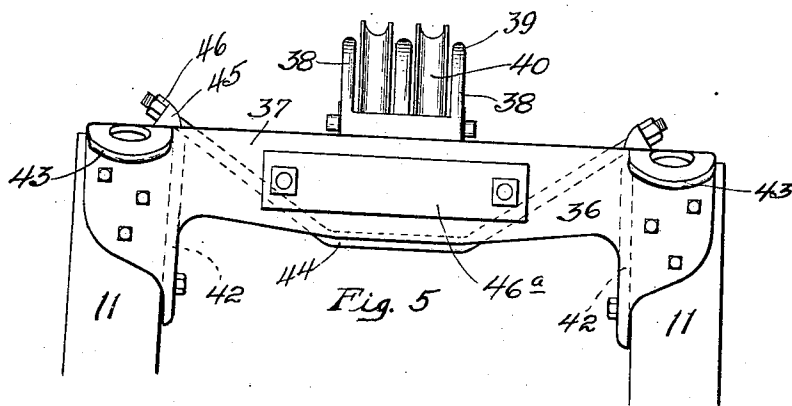
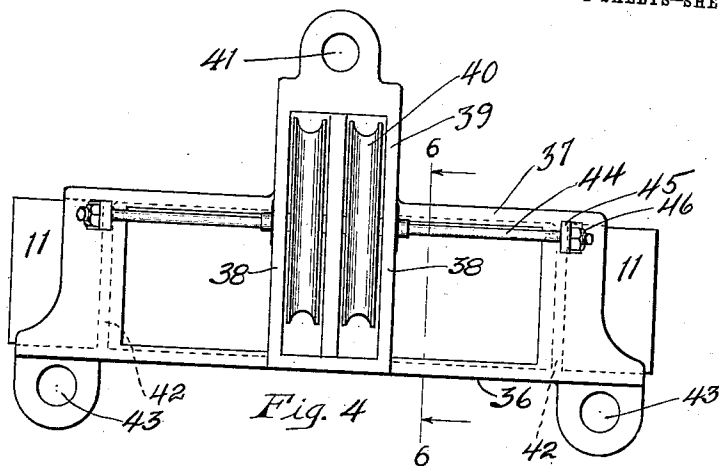
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2 SHEETS—SHEET 2.



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DERRICK.

988,035.

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To all whom it may concern:

Be it known that I, MICHAEL J. SASGEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Derricks, of which the following is a specification.

The derrick of the present invention relates more particularly to that type which is adapted and intended for use to hoist and place material during building operations and to elevate material to the various floors, and is positioned upon the top floor of the structure and is moved upward as the different stories of the structure are completed, or it may be placed and operated from the ground.

The invention relates more particularly to a construction of framework and means for joining the several sections thereof together so as to make a complete structure, of a formation to be readily taken apart and put together, thus enabling the device to be knocked down for the purpose of removal or shipment.

The invention further consists in forming a metallic cap piece for joining the upper ends of the side beams of the derrick structure, said cap serving as a mounting for the sheaves and providing means for attachment of the various guy lines.

A further object is to provide means for securing an extension boom in place upon the structure, so as to permit of its ready insertion and removal. And the invention further consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings—Figure 1 is a front elevation of a derrick comprising the parts of the present invention in operative position; Fig. 2, a side view similar to Fig. 1; Fig. 3, a detail of the extension boom; Fig. 4, a plan view of the cap piece; Fig. 5, a face view of the cap piece; Fig. 6, a section on line 6—6 of Fig. 4, looking in the direction of the arrow; Fig. 7, a perspective of the cap piece employed with the extension boom; Fig. 8, an under face view of the cap piece.

The structure as shown comprises side sills 11 and a bottom sill 12. The side sills are joined to the bottom sill by angle-plates 13, which, as shown in Fig. 1, comprise a vertical portion overlapping and lying upon each of the sills to which it is attached, and an angle portion lying against the outer face of the side sill and the upper face of the bottom sill; and the plates are secured to the sills by tie bolts or other suitable fastening means.

Mounted within suitable journal boxes 18 secured to the side sills 11 is a reel 19 actuated by a driven gear 20. In mesh with the gear 20 is a driving pinion 25, mounted upon a driving shaft 26 secured within journal bearings 27 attached to the side sills, and the shaft 26 is actuated by handles 28 positioned on either end thereof.

The derrick is provided above the reel with a transverse brace 32, of angle formation, which provides a seat for the lower end of an extension boom 33, and the lower end of the boom is secured in place by a strap 34 or other suitable means mounted upon the brace 32. The derrick is provided at a point intermediate the transverse brace 32 and the upper edge of the structure with cross braces 35, and the side sills are secured at their upper end by a cap piece 36. This cap piece is in the form of a web body portion 37, the adjacent middle depending walls 38 of which are extended outward to form a housing 39 for the reception of the sheaves 40, and the housing is provided with an eye 41 for the reception of a guy line. The extension of the housing out from the structure permits the ropes from the tackle to lie and operate outside the structure, whereby the material is kept clear of the structure during the hoisting operation.

The outer depending walls 42 of the cap piece lie adjacent to the side sills 11 and are secured thereto by suitable bolts or other fastening pieces. The cap piece 36 extends around the upper portion of the side sills, as shown in Fig. 4, and is rigidly secured thereto to form a strong and durable connection between the sills. The sills are provided

adjacent their outer edges with eyes 43, which serve for the reception of guy lines, and the cap piece is further strengthened by a truss rod 44, which extends transversely thereacross and passes through lugs 45 and is held in place by means of nuts 46 or other suitable fastening devices secured to the ends thereof.

A strap 46^a is provided on the cap piece for the clamping of the extension boom 33. This method of securing the boom in place, besides providing a mounting whereby the boom may be readily taken off or placed on the structure, places the boom in position so that the tackle may be placed upon the boom without withdrawing it from the sheaves of the derrick; and, furthermore, the method of securing the boom by means of the straps 34 and 46^a provides an extremely rigid mounting for the boom and one which does not interfere with the operation of the derrick when the boom is removed therefrom.

From the foregoing description it will be seen that the derrick structure is of a nature to be easily taken apart and shipped, and that the cap pieces, besides furnishing a connection for the side sills, serve as a mounting for the sheaves and as a medium for the reception of the guy lines.

As shown, an eye 47 is secured to one of the side sills and a cleat 48 is secured to the other side sill. This permits of the securance of the fish tackle ordinarily employed in derrick structures to swing the derricks out and in.

I claim:

1. A cap piece for derricks formed of a single piece of metal and comprising a body portion, companion plates extending outwardly from the body portion and lying at an angle with respect to the boom, said plates serving as a mounting for the sheaves and eyes for the reception of guy lines formed adjacent the outer edge of the body portion, substantially as described.

2. A cap piece for derricks, comprising a body portion, a bracket for the sheaves formed integral with the body portion, an eye on said housing for the reception of a guy line, and eyes for the reception of guy lines formed adjacent the outer edges of the cap piece, substantially as described.

3. A cap piece for derricks, comprising a body portion, a bracket for the sheaves formed integral with the body portion, eyes for the reception of guy lines formed adjacent the outer edge of the cap piece, and a truss rod extending across said cap piece and secured adjacent the ends thereof, substantially as described.

4. A cap piece for derricks, comprising a body portion of web formation having a plurality of depending walls formed there-

with, the adjacent central depending walls extending outwardly and forming a housing for the sheaves whereby the sheaves lie outside of the derrick structure and permit the load to be raised without contacting the derrick structure, the outer walls of the cap piece lying adjacent the side sills of the derrick frame, and means for securing the walls to the sills, substantially as described.

5. A cap piece for derricks, comprising a body portion of web formation, having a plurality of depending walls therein, the adjacent central depending walls extending outwardly and forming a housing for the sheaves, the outer walls lying adjacent the side sills of the derrick frame, means for securing the outer walls to the sills, an ear upon the housing for the securance of a guy line, and ears upon the body portion of the cap piece for the securance of guy lines, substantially as described.

6. A cap piece for derricks, comprising a body portion of web formation having a plurality of depending walls therein, the adjacent central depending walls extending outwardly and forming a housing for the sheaves, the outer walls lying adjacent the side sills of the derrick frame, means for securing the outer walls to the sills, an ear upon the housing for the securance of a guy line, ears upon the body portion of the cap piece for the securance of guy lines, and a truss rod extending transversely across the cap piece, substantially as described.

7. A cap piece for derricks, comprising a body portion, a housing for the sheaves formed integral with the body portion, eyes for the reception of guy lines formed adjacent the outer edge of the cap piece, a truss rod extending transversely across the cap piece and bent upwardly to extend from the lower edge of the cap piece to the upper edge thereof, and means for securing the truss rod in position, substantially as described.

8. A cap piece for derricks, comprising a body portion, a bracket for the sheaves formed integral with the body portion and projecting outside thereof, and extending at an angle with respect to the boom, whereby the sheaves lie in an offset relation to the boom and permit the load to be raised without contacting the structure, substantially as described.

9. In combination with a derrick structure, a cap piece comprising a body portion, providing a mounting for the sheaves, a clamp for the boom mounted upon the cap piece, a supporting ledge upon the structure for the lower end of the boom, and a clamp for the lower end of the boom coöperating with the clamp on the cap piece for rigidly mounting the boom on the structure, substantially as described.

10. In combination with a derrick structure, a cap piece comprising a body portion providing a mounting for the sheaves, a clamp for the boom mounted upon the cap
5 piece, a supporting ledge upon the structure for the lower end of the boom, and a clamp mounted upon the ledge for the lower end of the boom coöperating with the clamp on the cap piece for rigidly mounting the boom on the structure, substantially as described.

M. J. SASGEN.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
