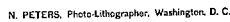


Patented June 29, 1886.



UNITED STATES PATENT OFFICE.

THOMAS CHARLES GOUDIE, OF CHICAGO, ILLINOIS.

SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 344,734, dated June 29, 1886.

Application filed February 23, 1886. Serial No. 192,883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CHARLES GOUDIE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Scaffolds, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to scaffolds, having for its object the provision in an article of the class named of means whereby the scaffold may be elevated or lowered and held in any desired position and transported from place to place.

To this end it consists in the construction, arrangement, and combination of parts for service, substantially as hereinafter described, and specifically pointed out in the claims.

In the drawings, Figure 1 represents a perspective view of a scaffold embodying my improvements. Fig. 2 is a transverse sectional view thereof.

Referring to the drawings, in which similar letters of reference denote similar parts, A designates the frame of the scaffold-raising device consisting of the sill provided at its opposite ends with uprights $a' a^2$, the inner adjacent faces of which are provided with grooves or ways b , which may be formed by two bars of metal or wood, b' , as shown, in which move and operate tenons c , formed upon the opposite ends of a cross-head, C.

D designates a transversely-extending bar that operates to hold the uprights $a' a^2$ from spreading apart when being used. Each of the uprights $a' a^2$ is provided at its upper end with a metal cap, a^3 , the inner sides of which are adapted to receive a sheave or pulley, e' , over which passes a cord, c^2 , that extends from eyebolts d on the cross-head C over said sheaves to drums e , mounted upon a shaft, E, journaled in the uprights $a' a^2$, near the lower ends thereof.

$f f'$ designate spur-gear-wheels mounted upon the shafts at the inner ends of the drums e , the teeth of which engage with and are rotated by pinions g , mounted upon a shaft, G, journaled in the uprights $a' a^2$, above the shaft E. The outer ends of the shaft G project

through the uprights $a' a^2$, and are provided at their extreme outer ends with cranks $g' g^2$.

H H' designate straining-rods that extend from points h near the bottom of the uprights to points h' upon the upper surface of the sill a of the frame A. I I' designate similar straining-rods, that extend from the outer faces of said uprights $a' a^2$, and are secured at their opposite ends to stakes driven in the ground for the purpose of holding said uprights in vertical position.

If desired, friction-pulleys k (see Fig. 2) may be used in connection with the tenons c of the cross-head C, said friction-wheels being placed in grooves or recesses formed in the side surfaces of said tenons.

L designate staging-planks secured at their ends to the upper surface of the cross-head C.

l designates a ratchet-wheel mounted at one end of the shaft G, outside of the upright frame, the teeth of which are engaged by a pawl, l' , journaled to said uprights above the ratchet-wheel.

If desired, straining-nuts or burrs l^2 may be used in connection with the straining-rods H H' I I'.

Modifications in detail of construction may be made in the herein-described invention without departing from the spirit or sacrificing the advantages thereof—as, for instance, the gear-wheels $f f'$ and pinions g may be dispensed with and the operating-handles attached directly to the projecting end of the shaft E, whereon is mounted the drum.

I am aware of Patents Nos. 118,128 and 60,085, and I disclaim the devices therein shown and described.

Having described my invention, I claim—

1. The combination of the frame A, having the sheaves at its upper end, the shaft E, journaled therein and having the drums, a power-shaft, G, also journaled in the frame and geared to the shaft E, for actuating the same, a movable cross-head, C, guided in the frame, and the cords or ropes secured at one end to the cross-head and passing over the pulleys of the frame and the drums of the shaft E, all combined and arranged substantially as described.
2. In a scaffold, a frame consisting of sills

5 a , uprights a' a'' , provided upon their inner faces with grooves b , in combination with the cross-head C, having tenons c , provided at their sides with friction-rollers k , cord c^2 , sheaves or pulleys c' , drums e , mounted upon the shaft E, operated by handle g' g'' , substantially as described.

10 3. In a scaffold, the combination of the frames A, having at their upper ends the caps a^3 , carrying the sheaves c' , a shaft, E, journaled in the frame and having the drums and gear-wheels, a driving-shaft, G, also journaled in the frame and having the gear-wheels g , meshing with the gear-wheels of the drum-shaft,

and the ratchets l , engaged by the pawls l' , the 15 vertically-movable cross-heads C, having the tenons at its ends guided in grooves of the frame and having the eyebolts, and the cords or ropes c^2 , passing over the sheaves c' and the drums of the shaft E, all arranged and combined substantially as described. 20

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS CHARLES GOUDIE.

Witnesses:

H. A. DOUGLAS,

W. D. ALLISON.