No. 841,932. PATENTED JAN. 22, 1907.

D. P. CHESEBRO.

SCAFFOLD.

APPLICATION FILED APR. 17, 1906.

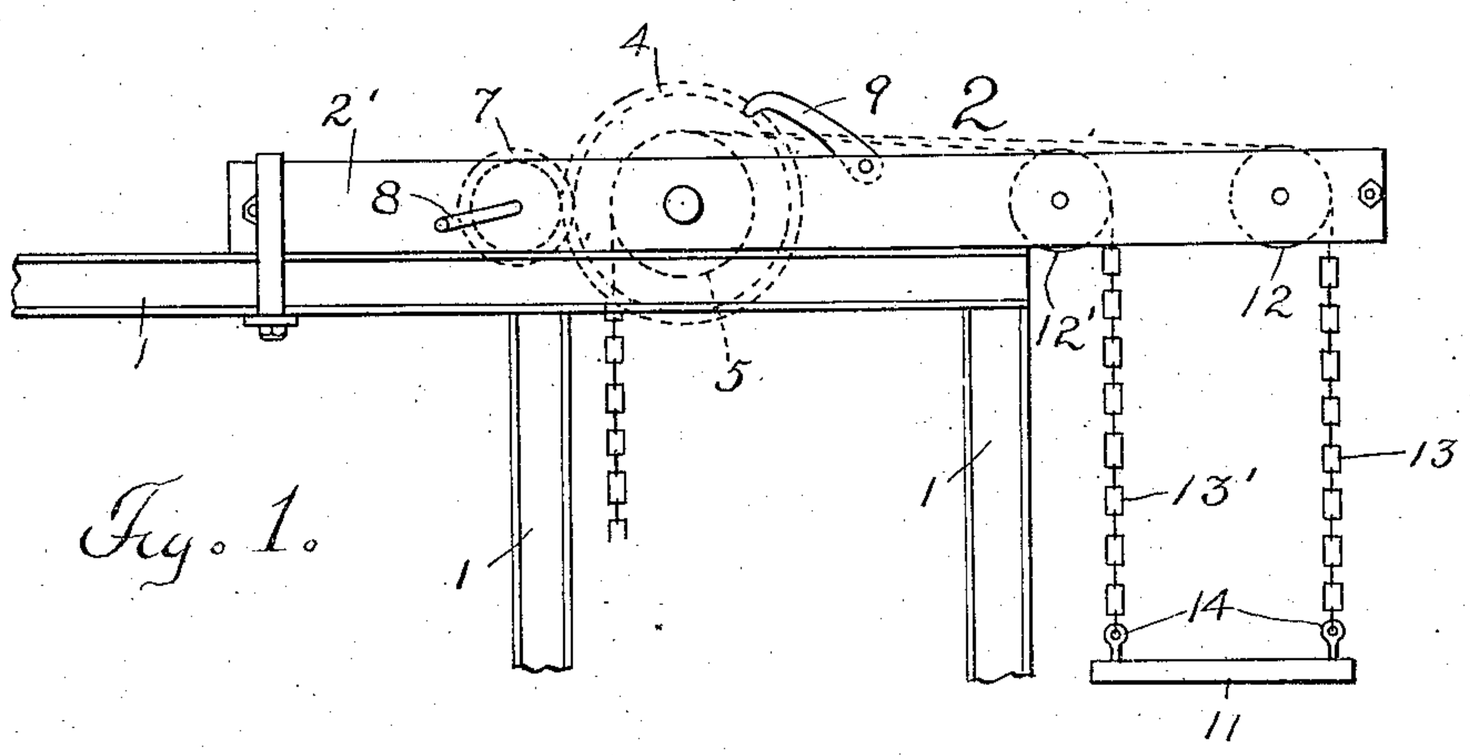


Fig. 1.

Fig. 2.

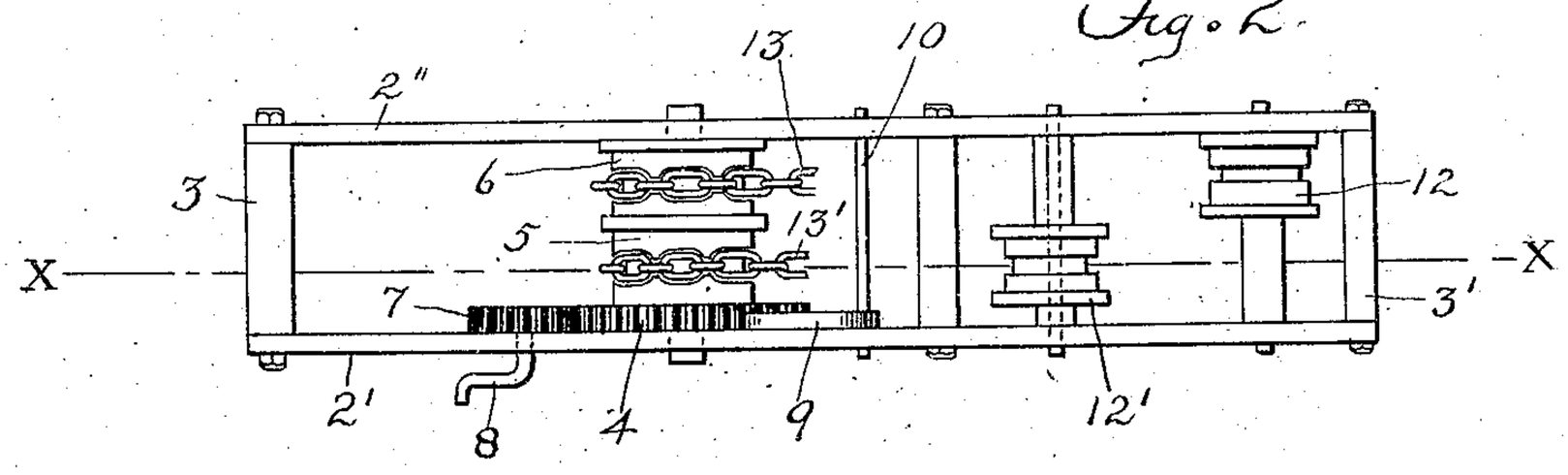
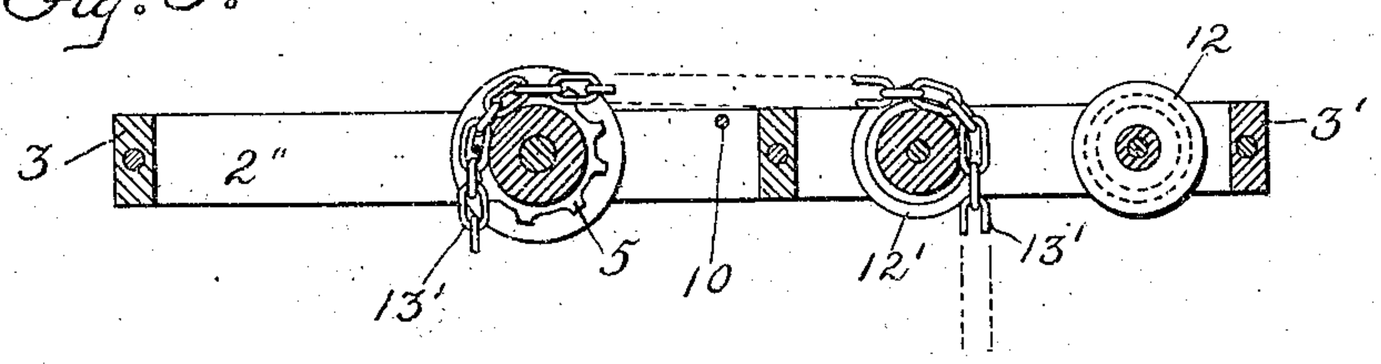


Fig. 3.



WITNESSES:

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SCAFFOLD.

No. 841,932. Specification of Letters Patent. Patented Jan. 22, 1907.

Application filed April 17, 1906. Serial No. 312,094.

To all whom it may concern:

Be it known that I, DENISON P. CHESEBRO, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, (with post-office address Sixty-fourth street and First avenue,) have invented certain new and useful Improvements in Scaffolds, of which the following is a specification.

My present invention relates to improvements in scaffolds used for building up the walls of a structure after the iron or steel framework has been completed.

The main object of the invention is to provide a scaffold with means whereby it can be raised by a person within the framework of the building as the wall is built up.

Another object is to reduce the number of operating parts, thus simplifying the apparatus and reducing the cost of construction.

My invention consists of the special constructions and combinations of parts more particularly hereinafter described and then specified in the claims.

In carrying out my invention I employ a framework secured to the beams or girders of a building and projects therefrom. Within this framework is mounted a drum consisting of two sprocket-wheels attached to a gear-wheel, said drum being operated by a crank-arm upon which is mounted a pinion meshing with the gear-wheel. This part of the mechanism is mounted within the framework at such a place that when attached to the skeleton of the structure the same can be operated by a person standing upon a convenient part of the building. At a distance out from the winding-drum two pulleys are mounted within the framework, over which chains from the sprocket-wheels pass, so as to bring the scaffold-platform at the proper distance from the front of the building. The hoisting-chains pass from the sprocket-wheels over the pulleys and are secured to the end of the scaffold-platform, it being understood that one framework with its operating parts is provided for each end of the platform.

In the accompanying drawings, Figure 1 illustrates diagrammatically the framework of a building with my invention secured thereto. Fig. 2 is a plan view of my invention, showing the suspending and operating mechanism. Fig. 3 is a vertical longitudinal section on the line *x x*, Fig. 2.

In the drawings, 1 represents the girders or beams forming the skeleton framework of a building in the course of construction. To one of the girders or beams I secure the framework 2, within which is mounted the operating parts of my invention. This framework may be secured to the girders by bolts or any other suitable means. The said framework 2 consists of string-pieces 2′ and 2″, which project a distance from the front of the building and are properly braced by cross-pieces 3 3′.

4 indicates a gear-wheel suitably mounted within the frame 2 at the inboard end thereof and carrying a drum consisting of two parallel sprocket-wheels 5 and 6, which upon rotation of the wheel and drum will necessarily rotate together or at the same rate and take up any chains passing over them and engaged by the said sprockets at the same rates. Rotation of the drum is produced in any desired way—as, for instance, by a pinion 7, mounted within string-piece 2′ and operated by the crank 8. A pawl 9, mounted on shaft 10, prevents the drum from revolving backward, and thus allowing the scaffold-platform to drop.

12 12′ are pulleys over which the chains 13 13′, engaged by the sprocket-wheels 5 and 6, pass. Said pulleys are mounted on horizontal shafts, which connect the string-pieces forming the frame and are located in the outboard end of the frame at a distance from the hoisting mechanism, so as to have the platform 11 swing clear of the building and at the same time permit it to be raised from the building. The pulleys 12 12′ are mounted, as shown in the plan view, out of line with one another and each in line with its respective portion of the winding-drum. The hoisting-chains are attached to the platform at opposite sides thereof by means of the ring-bolts 14.

In operating the device to lift the scaffold the crank 8 is turned, thereby imparting rotation simultaneously at the same rate to the two sprocket-wheels 5 and 6, constituting the drum, and winding up the two chains 13 13′ at absolutely the same rate, so that the front and rear sides of the scaffold will be kept level and tilting sidewise rendered out of the question. Moreover, the operation may be conducted by a person standing on the framework of the building and without the necessity of leaning over into a dangerous position beyond the framework.

The sprocket-wheels are preferably formed

with recesses therein to hold the links of the chains, as shown in Fig. 3; but it will be understood that the wheels might be provided with teeth to engage the links of the chain in an obvious manner; but owing to the liability of the teeth breaking off, due to the weight of the scaffold, I prefer to construct the sprocket-wheels with the said recesses.

What I claim as my invention is—

1. In a device of the character described, the combination of string-pieces bolted together, means for securing them to the framework of a building, a drum consisting of a pair of parallel sprocket-wheels mounted in said string-pieces in the inboard portion thereof, pulleys mounted out of line with one another in the overhang or outboard portion of the framework, chains passing over said sprocket chain-wheels and said pulleys, a platform hung at its opposite sides respectively from said chains, means for winding said drum to take up the chains at the same rate and means for preventing backward movement of the drum, as and for the purpose described.

2. In a hanging scaffold, the combination of a frame consisting of parallel string-pieces secured together, means for attaching said frame to the framework of a building, a drum consisting of a pair of sprocket-wheels mounted to rotate within said frame at the inboard portion thereof, pulleys mounted in the overhanging or outboard portion of the framework upon horizontal shafts connecting the two string-pieces, chains passing over said chain-wheels and pulleys respectively, a platform hung at its opposite sides respectively from said chains, a gear-wheel carrying said drum, and a pinion engaging said drum and mounted on a crank-shaft on the inboard portion of the frame, as and for the purpose described.

3. In a hanging scaffold, the combination of a framework adapted to project from a building, means for securing the frame to the building, a platform hung from chains depending from the projecting or outboard portion of the framework, hoisting mechanism common to said chains mounted on the inboard portion of the frame, and pulleys mounted on horizontal shafts connecting the two sides of the frame at the outboard portion thereof and at different distances from the building, as and for the purpose described.

Signed at New York, in the county of New York and State of New York, this 12th day of April, A. D. 1906.

DENISON P. CHESEBRO.

Witnesses:

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LILLIAN BLOND.