

E. H. HENDERSON.  
SCAFFOLD SUPPORTING MEANS.  
APPLICATION FILED JUNE 19, 1909.

959,008.

Patented May 24, 1910.

2 SHEETS—SHEET 1.

Fig. 1

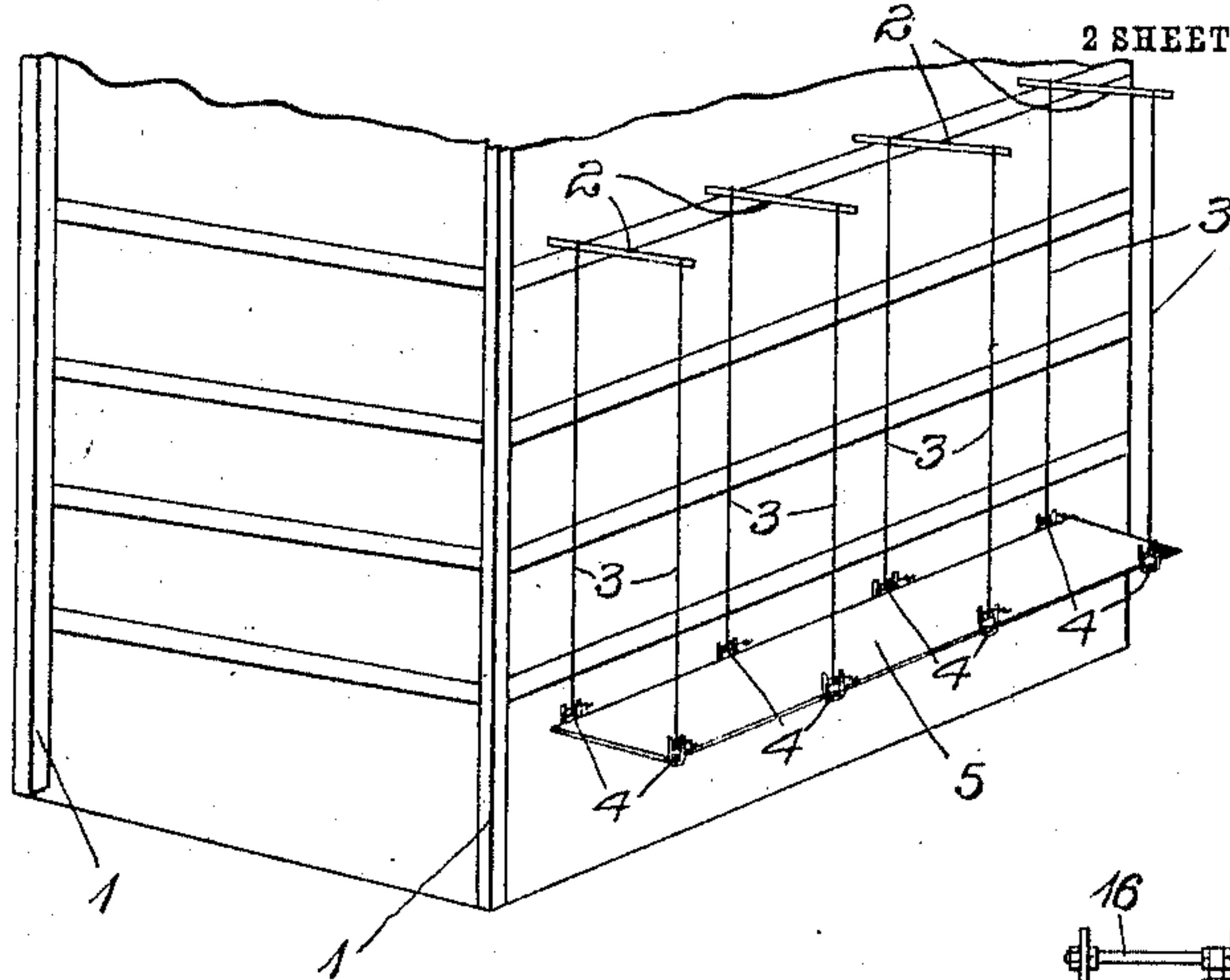


Fig. 2.

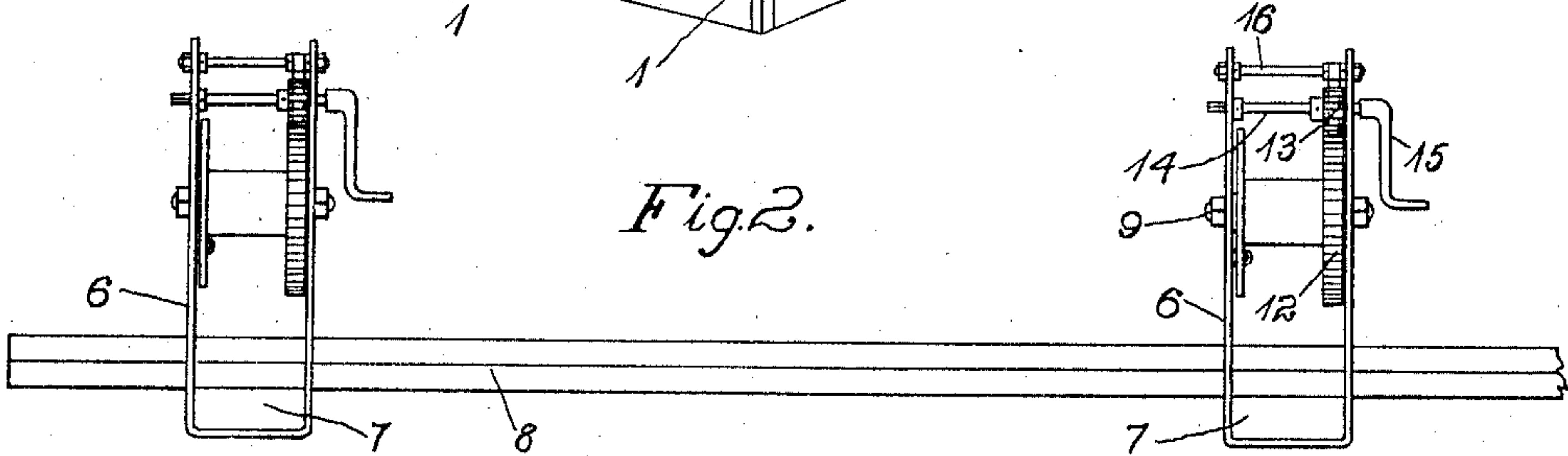


Fig. 3.

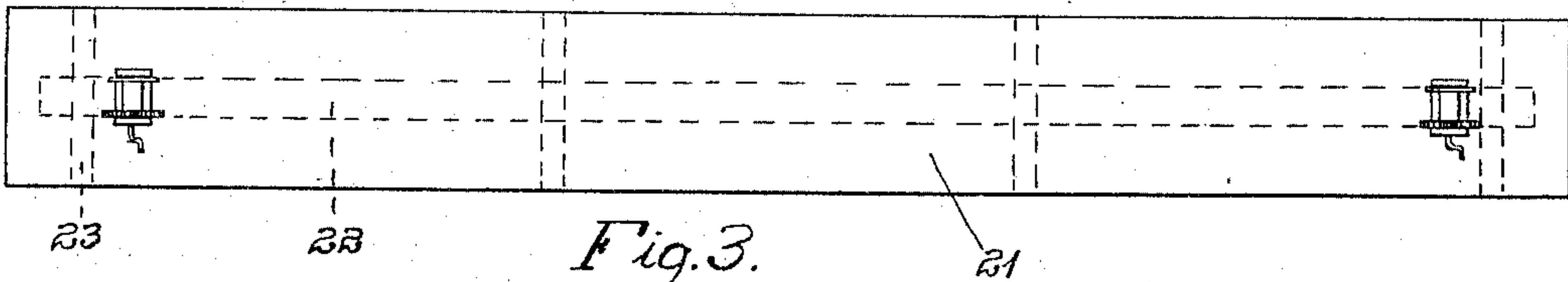
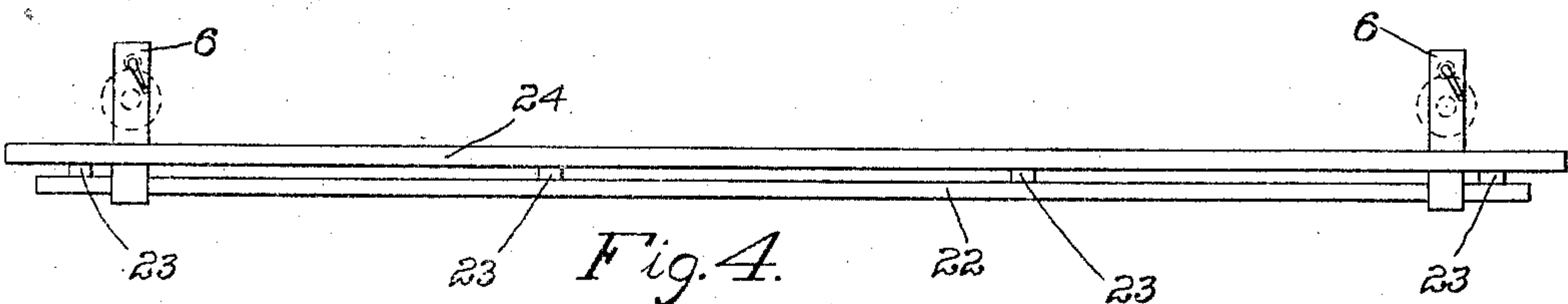


Fig. 4.



Witnesses

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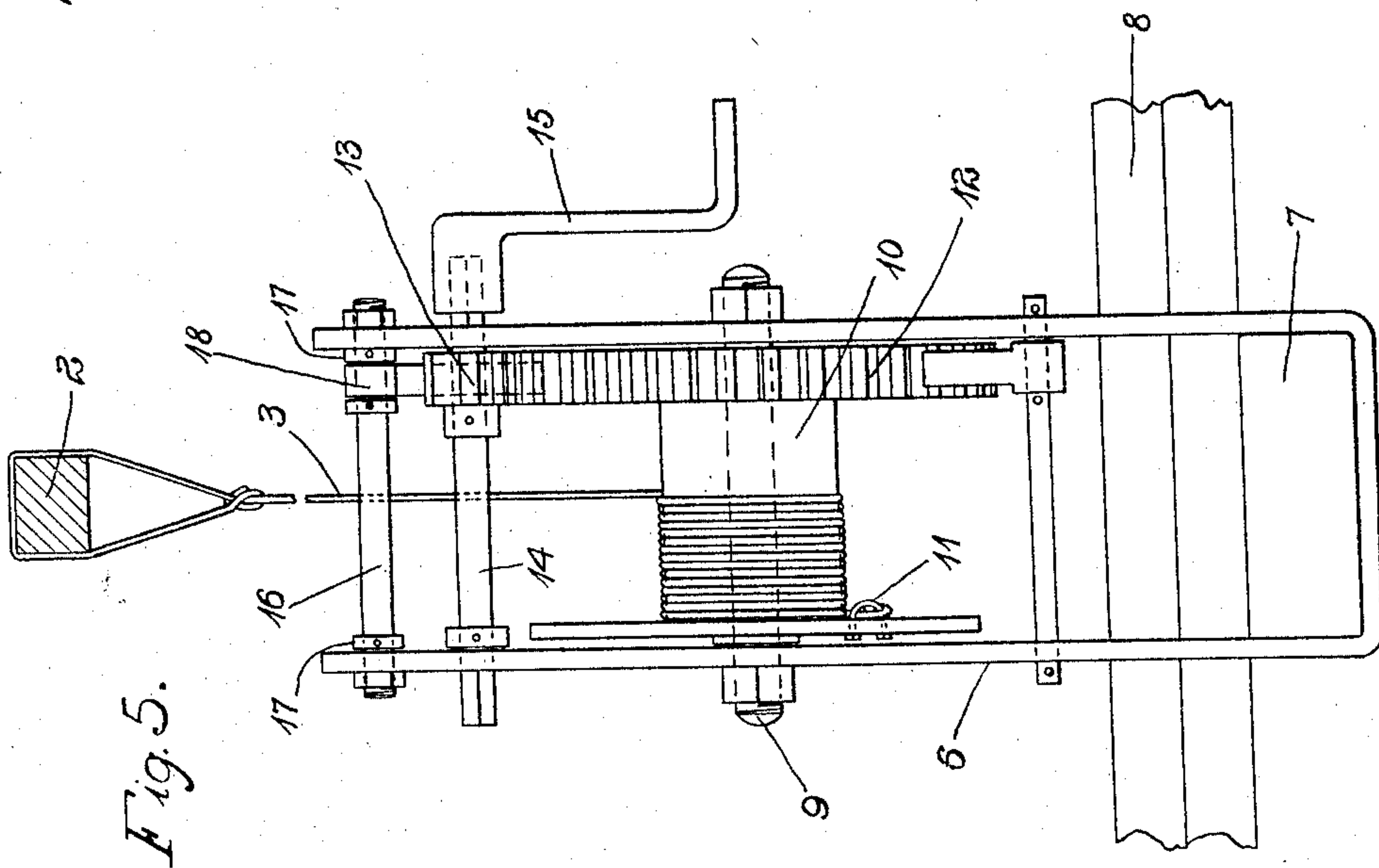
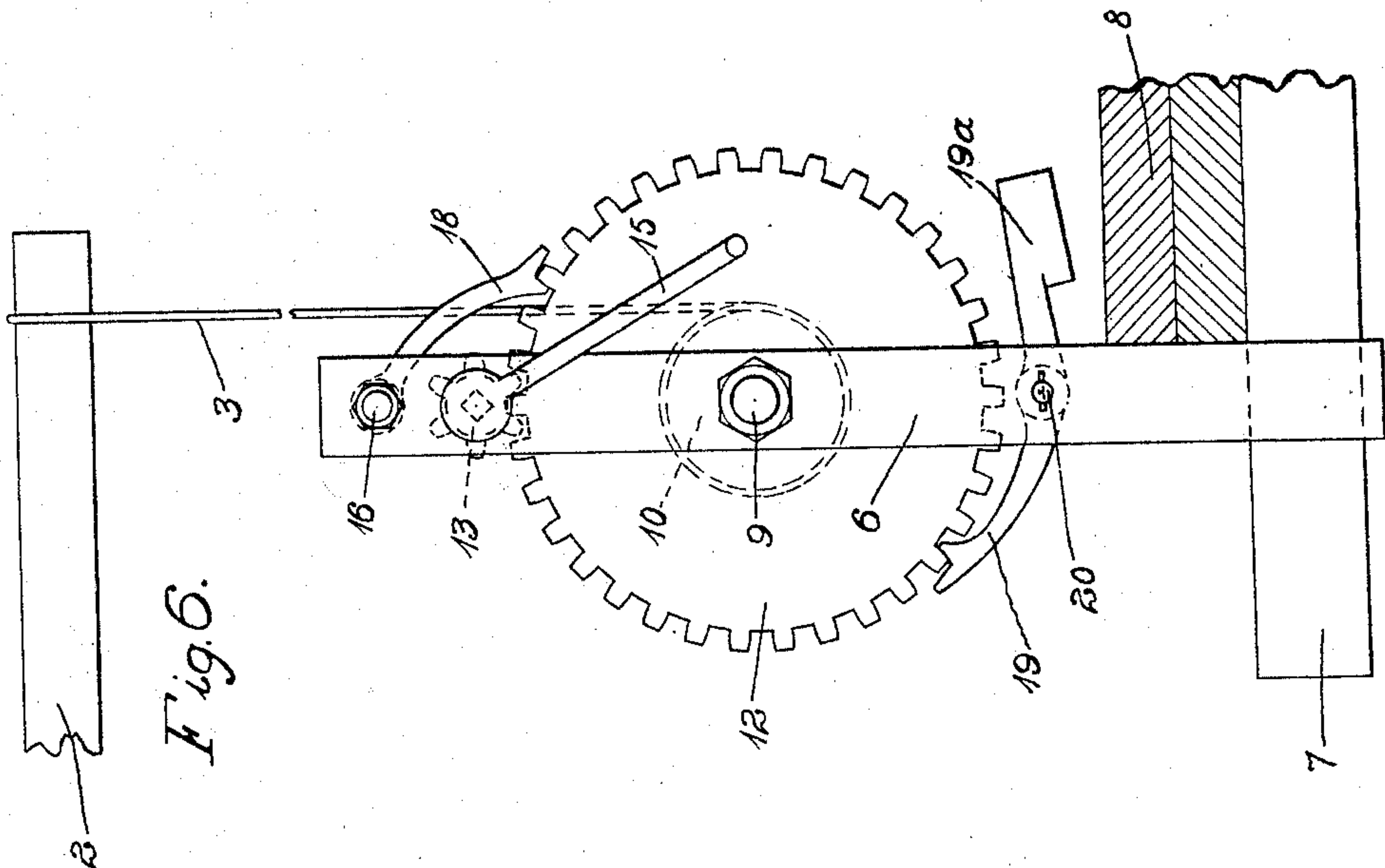
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2 SHEETS—SHEET 2.

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# UNITED STATES PATENT OFFICE.

ELIAS H. HENDERSON, OF CHICAGO, ILLINOIS.

## SCAFFOLD-SUPPORTING MEANS.

959,008.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed June 19, 1909. Serial No. 503,053.

*To all whom it may concern:*

Be it known that I, ELIAS H. HENDERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and Improved Scaffold-Supporting Means, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to an improved means for supporting scaffolds used in connection with the construction of buildings and their repair. Scaffolds for this purpose are preferably of the swinging type supported by cables from outriggers temporarily secured to the upper part of the building.

It has been the practice in the past to associate hoisting means with the cables at the outriggers, and in some cases it has been proposed to use such hoisting means in connection with the cables on the scaffold to adjust the height as required in connection with the work.

My invention relates to an improved form of hoisting mechanism carried by the scaffold for securing the same to the cables, the upper ends of which are connected to outriggers, generally temporary in character, secured to the upper portion of the building.

It is an object of my invention to construct such a hoisting mechanism in such a manner that it results in a maximum degree of security and a minimum cost of production.

The several drawings illustrating my invention are as follows:

Figure 1 is a perspective view of the framework of a building showing my scaffold supporting means in place upon a scaffold. Fig. 2 is an enlarged side view of a portion of the scaffold shown in Fig. 1. Fig. 3 is a top view of a modified form of scaffold narrower than the scaffold shown in Fig. 1. Fig. 4 is a side view of the scaffold shown in Fig. 3. Fig. 5 is a side view of the hoisting mechanism used in connection with each supporting cable. Fig. 6 is a face view of the mechanism shown in Fig. 5.

Similar numerals refer to similar parts throughout the several views.

As shown in Fig. 1, the framework 1 of the building supports at its upper portion

a plurality of outriggers 2, from the overhanging portions of which cables 3 depend. Each of these cables 3 is connected at its lower end to a hoisting mechanism 4, which together serve to support the scaffold 5.

As indicated in Fig. 2, the frame 6 of each hoisting mechanism is so formed as to pass around the end of a cross piece 7 used to support the platform 8 of the scaffold 5.

The detail construction of each hoisting mechanism is more clearly shown by reference to Figs. 5 and 6. Each of such mechanisms consists of a frame 6, preferably of bar iron, bent into the shape of a U, and when so formed adapted to pass around and support one end of one of the cross pieces 7 referred to above. The upwardly extending ends of the frame 6 have extending between them a round bar 9 which forms the support for a drum 10 used to receive the cable 3, the end of which is secured to the drum by means of a cable clamp 11. The drum 10 carries at its right-hand end, as shown in Fig. 5, a gear 12 which meshes with a pinion 13 secured to the shaft 14, which is revolubly supported in the upwardly extending ends of the frame 6. The shaft 14 is squared at its ends to be engaged by cranks 15 at either or both of such ends, as desired, for the purpose of rotating the shaft 14 and the drum 10. The upper ends of the frame 6 are held in proper relative position by means of a bolt 16, upon which are secured collars 17 to properly space the ends of the frame 6. The bolt 16 rotatably supports a locking pawl 18 adapted to engage the gear 12 carried by the drum 10 for the purpose of holding such drum positively in any position to which it may be moved by the operation of the crank 15. A second pawl 19 is indicated as supported by a rod 20 extending between the side members of the frame 6, which pawl, as indicated at 19<sup>a</sup>, is adapted to be engaged by the foot of the person operating the drum to remove such pawl from engagement with the gear 12 carried by the drum.

The hoisting mechanism just described is also adapted for use in connection with comparatively small scaffolds which are much narrower than the style of scaffold shown in Fig. 1. In this connection, one hoisting mechanism may be used at each end of the scaffold 21, as shown in Figs. 3 and 4. In connection with scaffolds of this type, it is generally desirable to locate a,



supporting timber 22 longitudinally of the scaffold 21 on its under side and substantially under the middle of the scaffold. This timber has placed upon it cross pieces 5 23, upon which the floor 24 of the scaffold is laid. The frames 6 of the hoisting mechanisms in this modification are built to pass around the ends of the timber 22 to support the scaffold.

10 From the above it will be seen that my construction secures the greatest possible amount of security, since the frame 6 passes around the supporting beams of the scaffold in such a way that no auxiliary means are 15 required to secure the hoisting mechanism to the scaffold. Furthermore, the construction is made very simple, and the machines can be cheaply made on account of the small number of parts, and further on account of 20 the single bar constituting the framework of the machine serving also as the bearings and bearing supports for the hoisting mechanism.

25 While I have shown my invention in the particular embodiment herein described, I do not, however, limit myself to this construction, but desire to claim any equivalent that will suggest itself to those skilled in the art.

30 I claim:

1. A scaffold consisting in the combination of cross beams, floor pieces extending between such beams, and a hoisting device associated with each end of each beam, each

hoisting device consisting of a continuous U- 35 shaped metal bar extending around the under side of and upward from the associated beam, and a hoisting drum rotatably supported by the side members of such bar.

2. A scaffold consisting in the combina- 40 tion of cross beams, floor pieces extending between such beams, and a hoisting device associated with each end of each beam, each hoisting device consisting of a metal bar formed around and extending upward on 45 both sides of the associated beam, a drum supported by the upwardly extending ends of the bar in bearings formed in such bar, such drum adapted to receive a cable for supporting the scaffold, a crank shaft also 50 supported in bearings formed in such bar, and gearing between the drum and the crank shaft.

3. A scaffold consisting of a plurality of U-shaped bars arranged in pairs, a cross 55 beam laid in and extending between each pair of such U-shaped bars, a floor laid upon said cross beam, a drum rotatably supported between the upwardly extending side members of each of said U-shaped bars, 60 and means for controlling the rotation of said drum.

In witness whereof, I hereunto subscribe my name this 16th day of June, 1909.

ELIAS H. HENDERSON.

Witnesses:

ALBERT C. BELL,  
ROBERT F. BRACKE.