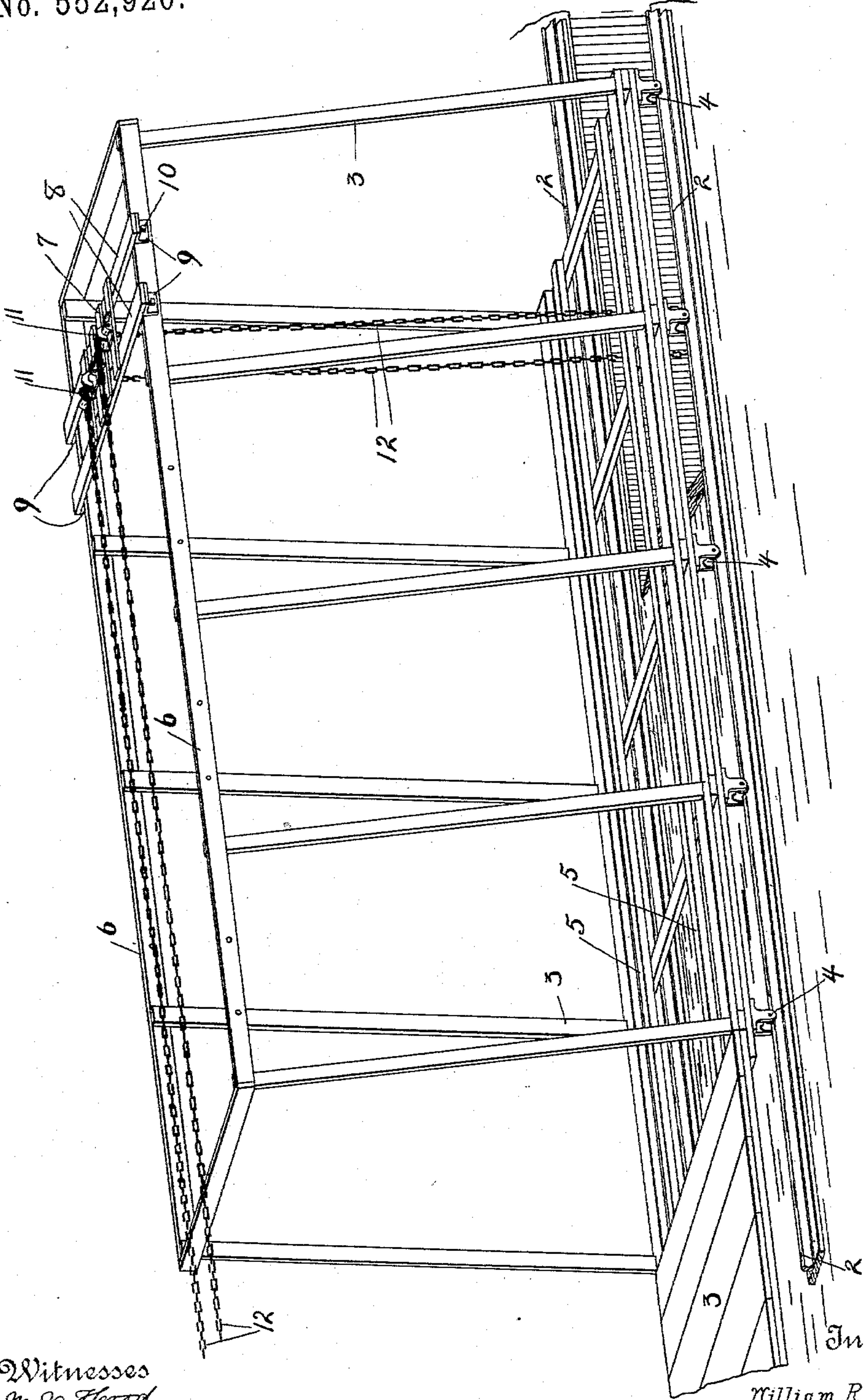


(No Model.)

W. R. MERCER.
ADJUSTABLE HEAD BLOCK FOR ELEVATORS OF EXCAVATING MACHINES.
No. 552,920.

Patented Jan. 14, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM R. MERCER, OF TERRE HAUTE, INDIANA.

ADJUSTABLE HEAD-BLOCK FOR ELEVATORS OF EXCAVATING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 552,920, dated January 14, 1896.

Application filed August 26, 1895. Serial No. 560,475. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. MERCER, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented a new and useful Excavating-Machine, of which the following is a specification.

My invention relates to an improvement in excavating-machines.

The object of my invention is to provide an adjustable head-block over which the chains or ropes of an elevator-bucket may be passed, said head-block being adapted to be secured in its several adjusted positions so as to act as a lateral or transverse brace for the supporting-framework.

The accompanying drawing illustrates my invention.

In the drawing, 2 2 indicate a pair of tracks which are laid upon the ground parallel to and one on each side of the proposed excavation, and mounted upon these tracks is a framework 3 carried by a series of wheels 4 resting upon said tracks. At the front end of frame 3 is mounted a steam-engine or other source of power, (not shown,) said engine being used to operate the elevator-bucket, and also a series of cars which run upon tracks 5 5, which are laid upon the rear end of frame 3 and extend some distance to the rear thereof along the line of the trench.

In the excavation of sewer and other like trenches the rapidity of excavation is of considerable importance, and for that reason frame 3 is made of some length and the upper part thereof provided with longitudinal rails 6 6, upon which is mounted an adjustable cross-head 7. This cross-head is composed of a pair of transverse bars 8 8 provided with brackets 9, which engage rails 6 and prevent any transverse movement of the cross-head, longitudinal movement of said head being prevented by any suitable means, such as bolts 10 engaging the brackets and rails. Between the bars and about midway thereof are mounted one or more pulleys 11 11, said pulleys being adapted to receive the ropes or chains 12 12 of the elevator-bucket.

Frame 3 is made about forty feet in length, and owing to the fact that the bucket must be allowed to traverse the entire length thereof it is impossible to provide the upper portion of said frame with any permanent lat-

eral or transverse braces. By constructing the adjustable cross-head in the manner described above, so that it may be rigidly secured in any one of its adjusted positions, the said cross-head forms a transverse brace for the frame at the very point of application of the greatest stress, thus making a very strong construction.

In practice I prefer to use in connection with my device a self-filling elevator-bucket; but any elevator-bucket may be used.

In operation the machine is placed as shown in the drawing, and one section of the trench is excavated to the desired depth by means of the elevator-bucket, said bucket discharging its contents into a car running upon tracks 5. The cross-head 7 is then moved forward on rails 6, is rigidly secured in its adjusted position, and another section of the trench excavated, this operation being continued until the front end of the frame 3 is reached, when the said frame is moved as a whole along track 2.

By making the cross-head 7 movable it is possible to adjust it at any desired point along the frame 3 and the excavation is materially expedited, especially when a self-filling bucket is used, a single operator being sufficient to control the entire machine.

I claim as my invention—

1. In an excavating machine, the combination with the frame-work thereof, of a head-block, longitudinally adjustable along the said frame and provided with pulleys for the reception of the elevator bucket ropes, said head-block being adapted to be rigidly secured in any one of its adjusted positions so as to form a transverse brace for the framework.

2. In an excavating machine, the combination with the frame-work thereof, of a longitudinally adjustable head-block mounted thereon, said head-block adapted to be rigidly secured in any one of its adjusted positions so as to form a transverse brace for the framework, consisting of the transverse bars 8, 8, and the pulleys 11, 11 mounted therebetween, substantially as described.

WILLIAM R. MERCER.

Witnesses:

A. M. HOOD,
M. V. HOOD.

It is hereby certified that in Letters Patent No. 552,920, granted January 14, 1896, upon the application of William R. Mercer, of Terre Haute, Indiana, for an improvement in "Adjustable Head-Blocks for Elevators of Excavating-Machines," an error appears in the printed specification requiring correction as follows: On page 1, lines 96-99, the clause "adapted to be rigidly secured in any one of its adjusted positions so as to form a transverse brace for the frame-work," should be stricken out and inserted before the word "mounted," line 95 as now numbered, same page; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 28th day of January, A. D. 1896.

[SEAL.]

JOHN S. SEYMOUR,
Commissioner of Patents.

JNO. M. REYNOLDS,
Assistant Secretary of the Interior.