(No Model.) 2 Sheets—Sheet 1.

W. L. CLEMENTS.

PILE DRIVER.

No. 350,347. Patented Oct. 5, 1886.

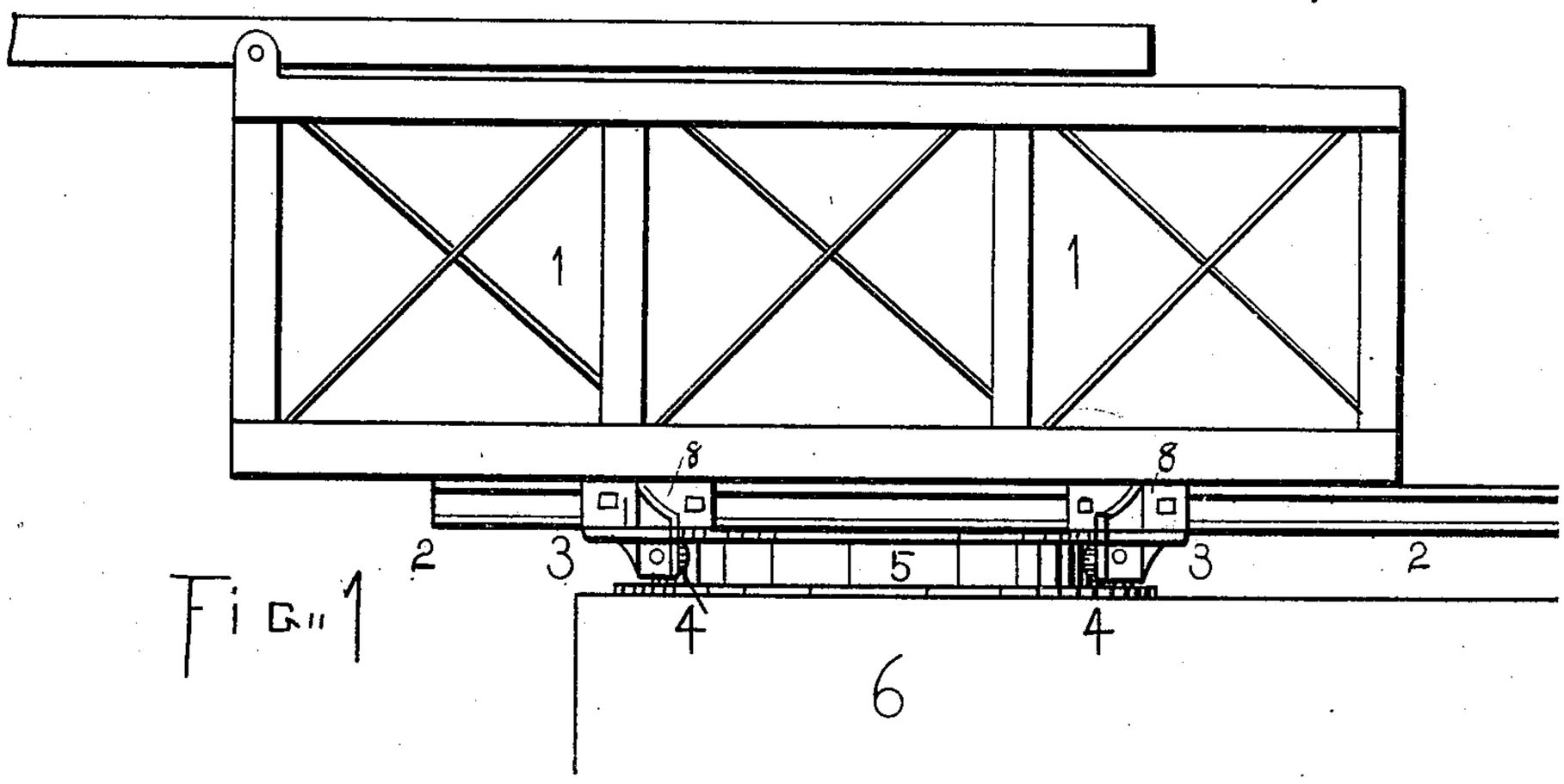

Fig. 1

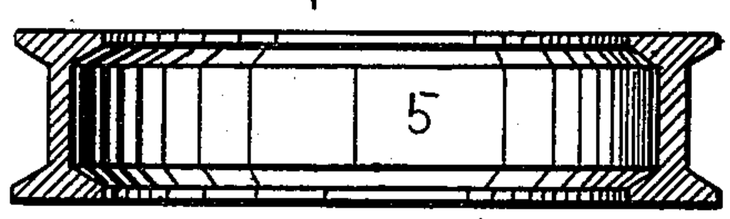

Fig. 2

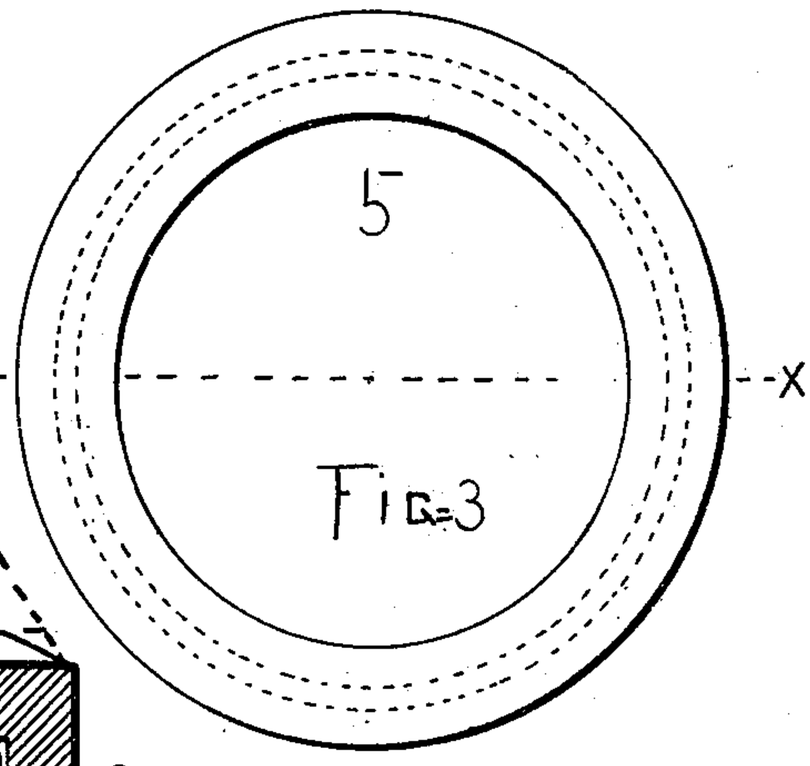

Fig. 3

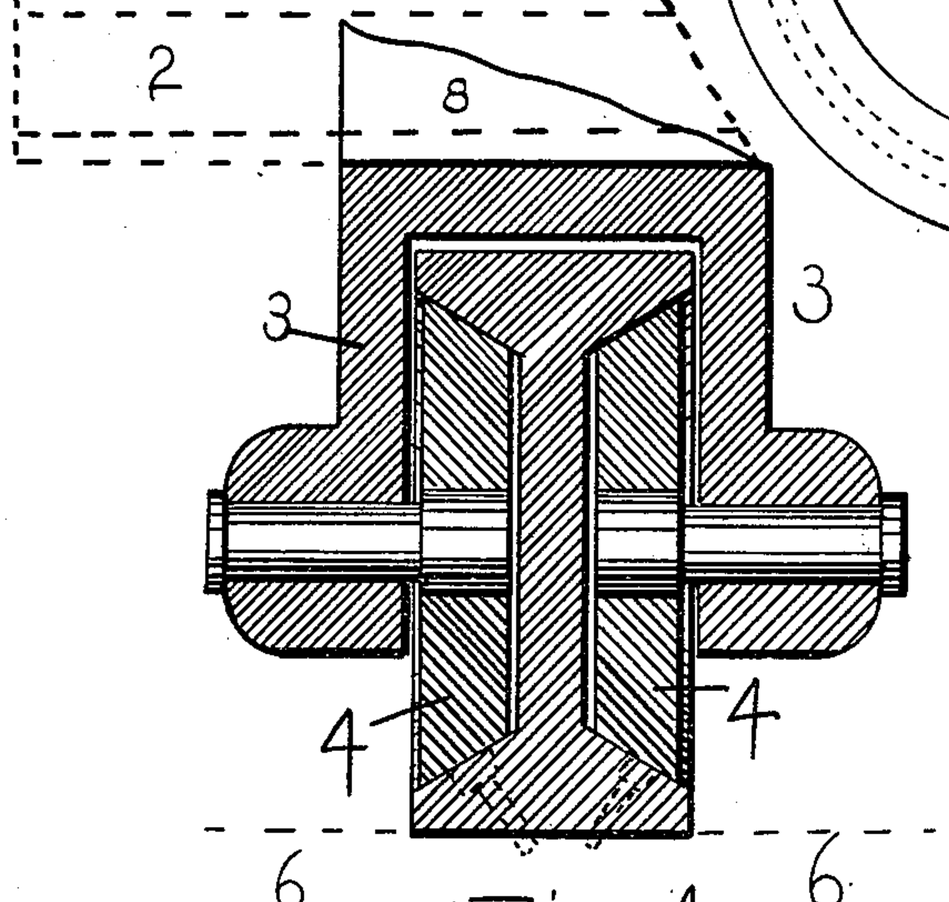

Fig. 4

Witnesses
Henry B. Lothrop.
Simmons Collins.

Inventor
William L. Clements
by Geo. H. Lothrop
Atty.

(No Model.)

2 Sheets—Sheet 2.

W. L. CLEMENTS.

PILE DRIVER.

No. 350,347. Patented Oct. 5, 1886.

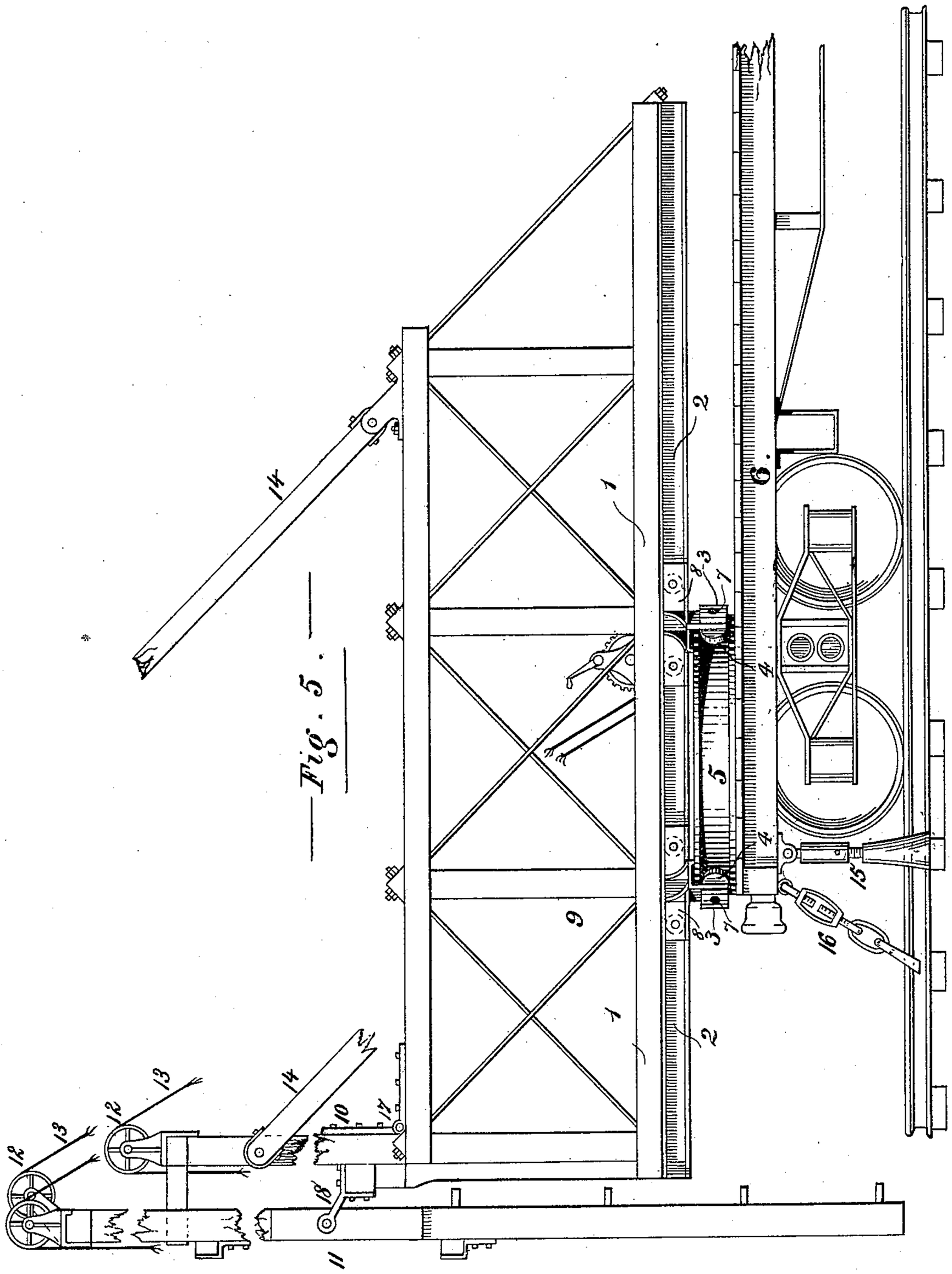

Fig. 5.

—WITNESSES.—

C. M. Mason.

Lumner Collins.

—INVENTOR.—

William L. Clements

by Geo. H. Lothrop,

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM L. CLEMENTS, OF BAY CITY, MICHIGAN.

PILE-DRIVER.

SPECIFICATION forming part of Letters Patent No. 350,347, dated October 5, 1886.

Application filed March 22, 1886. Serial No. 196,146. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. CLEMENTS, of Bay City, in the county of Bay and State of Michigan, have invented a new and useful Improvement in Pile-Drivers, of which the following is a specification.

My invention consists in an improvement in the construction of pile-drivers to be carried on railway-cars, hereinafter fully pointed out.

Figure 1 is a side elevation; Fig. 2, a vertical section through the retaining-pivot; Fig. 3, a plan view of the pivot, and Fig. 4 a vertical section through the retaining mechanism; and Fig. 5 represents a side elevation of the pile-driver in position for work.

6 represents a portion of the body of a flat car on which is mounted a pile-driver, represented by 1, of the usual construction, sliding on two or more counterweighted channel-bars, 2, so that the pile-driver may be projected beyond the end of the car.

9 represents a framing secured to the channel-bars 2.

10 represents a frame hinged at 17 to the framing 9.

11 represents the uprights of the driver fastened to frame 10 by braces 18.

12 12 represent pulleys on the frame 10 and driver uprights 11, and 13 13 represent ropes running over said pulleys for swinging the driver on the hinges 17 and for operating the monkey.

14 14 represent pivoted braces running from the framing 9 to the frame 10 and driver 11, and serve to support said frame and driver in position for work. This construction permits the frame 10 and driver 11 to be swung on the hinges 17, so that they may lie horizontally on the framing 9 for transportation, as will be readily understood.

15 represents a jack-screw placed under the sill of the car, and 16 represents a chain-connection from the rail to the sill, having therein a turn-buckle by which it may be tightened, the object of this being to hold the car solidly in position while the driver is at work.

5 represents a circular I-beam firmly secured to the floor of the car, to form the pivot on which the channel-bars 2 2 turn when it is desired to swing the pile-driver off to one side of the car.

8 8 represent chairs, usually four in number, firmly bolted to the channel-bars 2 2 at the points where said bars cross the I-beam 5, each having two depending flanges, 3 3, extending down on the sides of I-beam 5, below the vertical center thereof.

4 4 represent rollers whose faces are beveled to fit the flanges of I-beam 5, and whose diameter is nearly the distance between said flanges, and these rollers are set on shafts 7, which are journaled in the depending flanges 3, so that the faces of said rollers are towards the web of the I-beam, as clearly shown in Fig. 4. Each chair 8 carries two of these rollers, set opposite each other, as shown, and thereby each chair 8 is held firmly down to the I-beam 5, while the rollers allow it to run freely around the circle formed by said I-beam. It is obvious that this arrangement binds the channel-bars 2 2 firmly to I-beam 5 and thence to the car, and at the same time permits said channel-bars to swing freely around the circle made by said I-beam, and facilitates the operation of the pile-driver.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the channel-bar of a pile-driver, a circle of I-beam iron, a chair bolted to the channel-bar and having depending flanges extending down on each side of the I-beam, and two rollers having beveled faces to fit the flanges of the I-beam set opposite each other on shafts journaled in the depending flanges of said chair, substantially as shown and described.

2. The combination of the channel-bar 2, chair 8, having flanges 3 3, I-beam 5, rollers 4 4, and shafts 7 7, substantially as shown and described.

WM. L. CLEMENTS.

Witnesses:
CHARLES B. LOTHROP,
GEO. H. LOTHROP.