

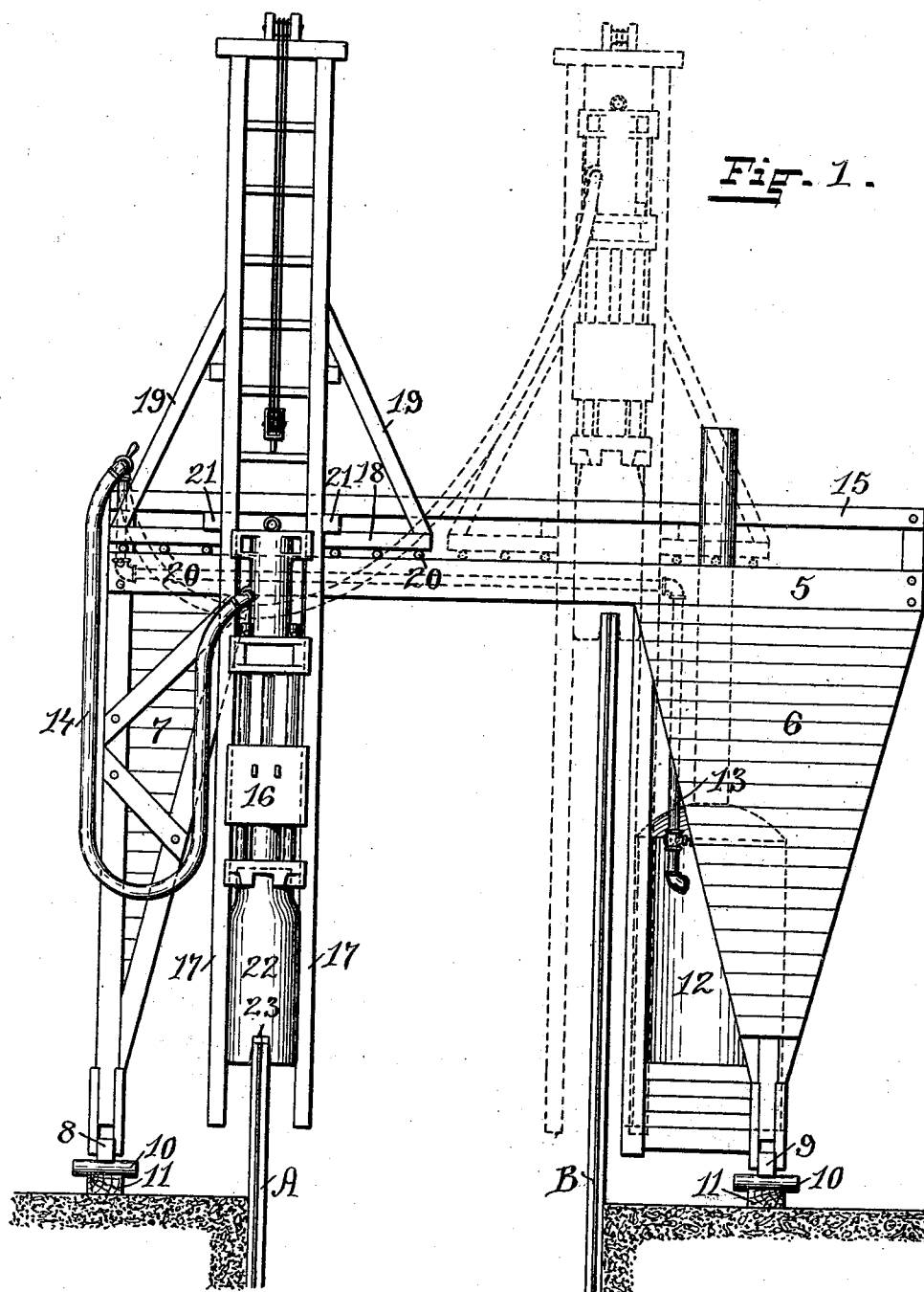
(No Model.)

F. E. SHAW.
PILE DRIVER.

2 Sheets—Sheet 1

No. 510,198.

Patented Dec. 5, 1893.



WITNESSES:

A. L. Makepeace

M. L. Mahoney

INVENTOR:

Frederick E. Shaw
by Joseph A. Miller & Co.
Attys.

(No Model.)

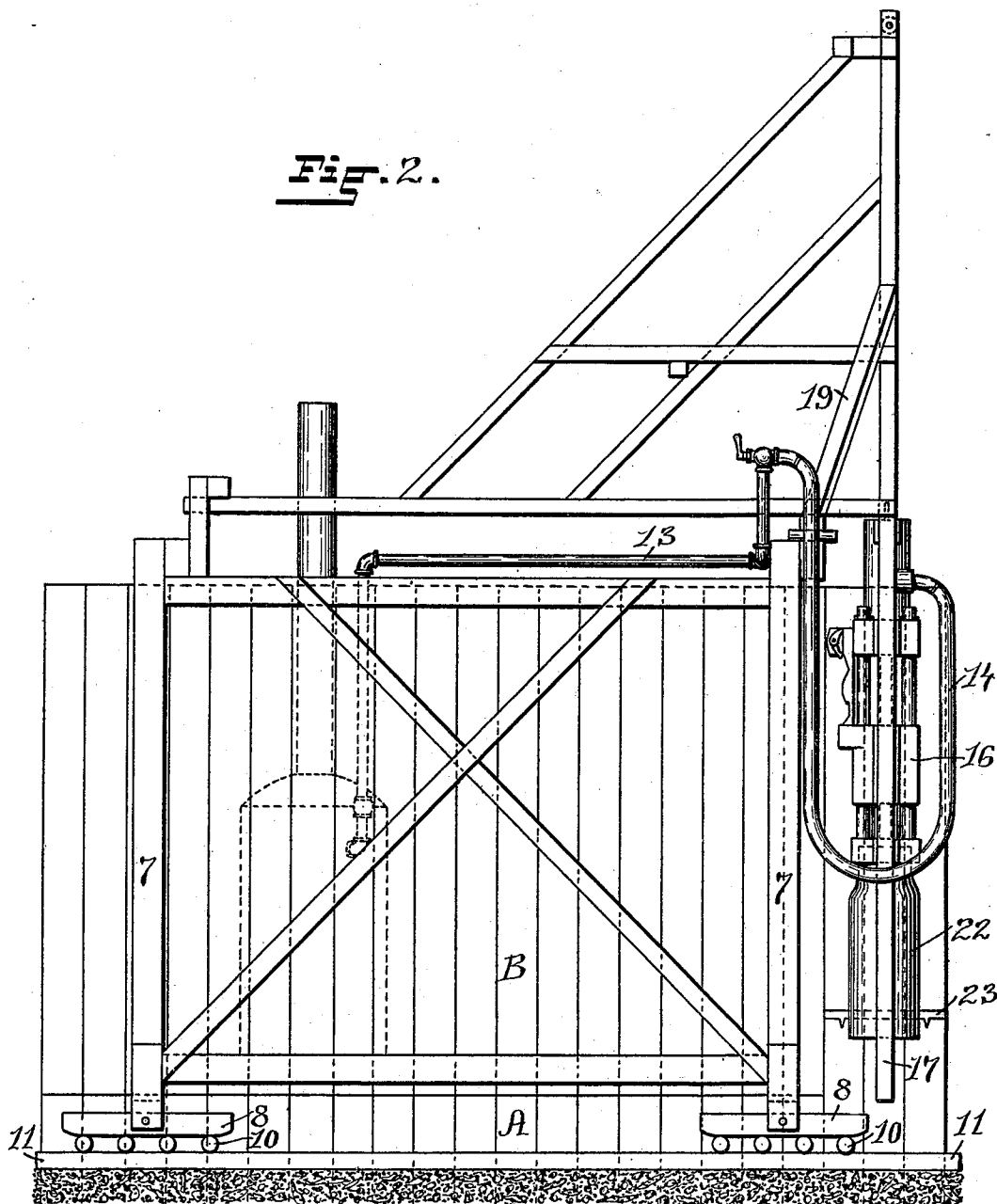
2 Sheets—Sheet 2.

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Fig. 2.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

FREDERICK E. SHAW, OF PROVIDENCE, RHODE ISLAND.

PILE-DRIVER.

SPECIFICATION forming part of Letters Patent No. 510,198, dated December 5, 1893.

Application filed August 24, 1893. Serial No. 483,977. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. SHAW, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Pile-Drivers; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in machines for driving trench sheathing and is particularly adapted for use when driving parallel lines of sheet piling to form the walls of a trench.

The object of the invention is to so construct a pile-driver that the driving-mechanism may be moved transversely without affecting the supporting frame-work.

Another object of the invention is to increase the efficiency of the pile-driver by constructing the same so that it may be more rapidly operated.

The invention consists in such novel features of construction and combination of parts as will hereinafter be more fully described and pointed out in the claims.

Figure 1 represents a front elevation of the improved pile-driving mechanism indicating the different locations of the driving-device. Fig. 2 represents a side elevation of the improved pile-driver.

Similar numbers of reference designate corresponding parts throughout.

Pile-drivers, as heretofore constructed for the class of work in which my improvements are particularly adapted, consist of a substantial frame-work mounted on side-supports which are separated sufficiently that the frame-work may span that portion of the street, or roadway, in which the trench is to be excavated. The lower portions of the side-supports are formed by longitudinal timbers, these resting on rolls which are carried by rails, thus allowing the supports and the frame-work to be moved along in the direction of the proposed trench as the piles are driven. On the frame-work is carried a pile-driving mechanism which has heretofore been fixed with relation to the frame-work thus necessitating the shifting of the whole frame-work or the carrying of two independent driving-

mechanisms. When the trench is to be dug in a narrow street the shifting of the entire mechanism is often impossible.

In carrying my invention into practice I use the ordinary frame-work consisting of a series of bridge-beams 5 supporting a flooring if desirable and mounted on the legs, or standards, 6 and 7. The lower portion of these standards are constructed as shown in the drawings and are furnished with the longitudinal beams 8 and 9, these being supported on the rolls 10—10 which are movable on the ways 11—11. On a lower platform of the frame-work is mounted the boiler 12 for operating the driving-device, and from the boiler extends a pipe 13 for conveying steam to a convenient point to connect with the flexible pipe 14 which conveys the steam to the driving-mechanism. The upper portion of the frame-work is furnished with a substantial track, or way, formed by the upper surface of the bridge-beam 5, and above this track is the guard-rail 15 supported at the ends, above and in the rear of the bridge-beam 5.

The pile-driving mechanism 16 may be of any usual construction, but preferably of the automatic form, and is mounted between the vertical guides 17—17. These guides are secured to the transversely movable platform 18 and are stayed by the members 19—19; the platform is carried by the rolls 20—20 resting on the transverse track, or way, at the upper portion of the frame-work, the beams 21—21 secured to the platform and extending beneath the guard-rail preventing the rear end of the platform being raised by the overweight of the driving-mechanism.

By reference to the drawings it will be apparent that when the piling A, has been driven the driving-mechanism and its supporting platform may be shifted across the trench to operate on the piling B, without shifting the entire platform and mechanism carried thereby.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a sheathing pile-driver, the combination with a bridge frame-work longitudinally movable on tracks, or ways, of a platform transversely movable on said bridge, vertical guides secured to the platform, a pile-driving

device movable between said guides, a guard-rail, and mechanism secured to the platform and extending beneath said guard-rail.

2. The combination with a bridge frame-
5 work having a transverse track, or way, the
guard-rail 15, and side-supports 6 and 7 for
supporting the same, of the platform 18, the
rolls 20, on which the platform is movable, the
vertical guides 17—17 secured to the plat-
10 form, a pile-driving device mounted between

the guides, and beams 21—21 secured to the platform and extending beneath the guard-rail, as and for the purpose described.

In witness whereof I have hereunto set my hand.

FREDERICK E. SHAW.

Witnesses:

M. L. MAHONEY,

JOSEPH A. MILLER, Jr.