W. J. HOY.

PILE DRIVER.

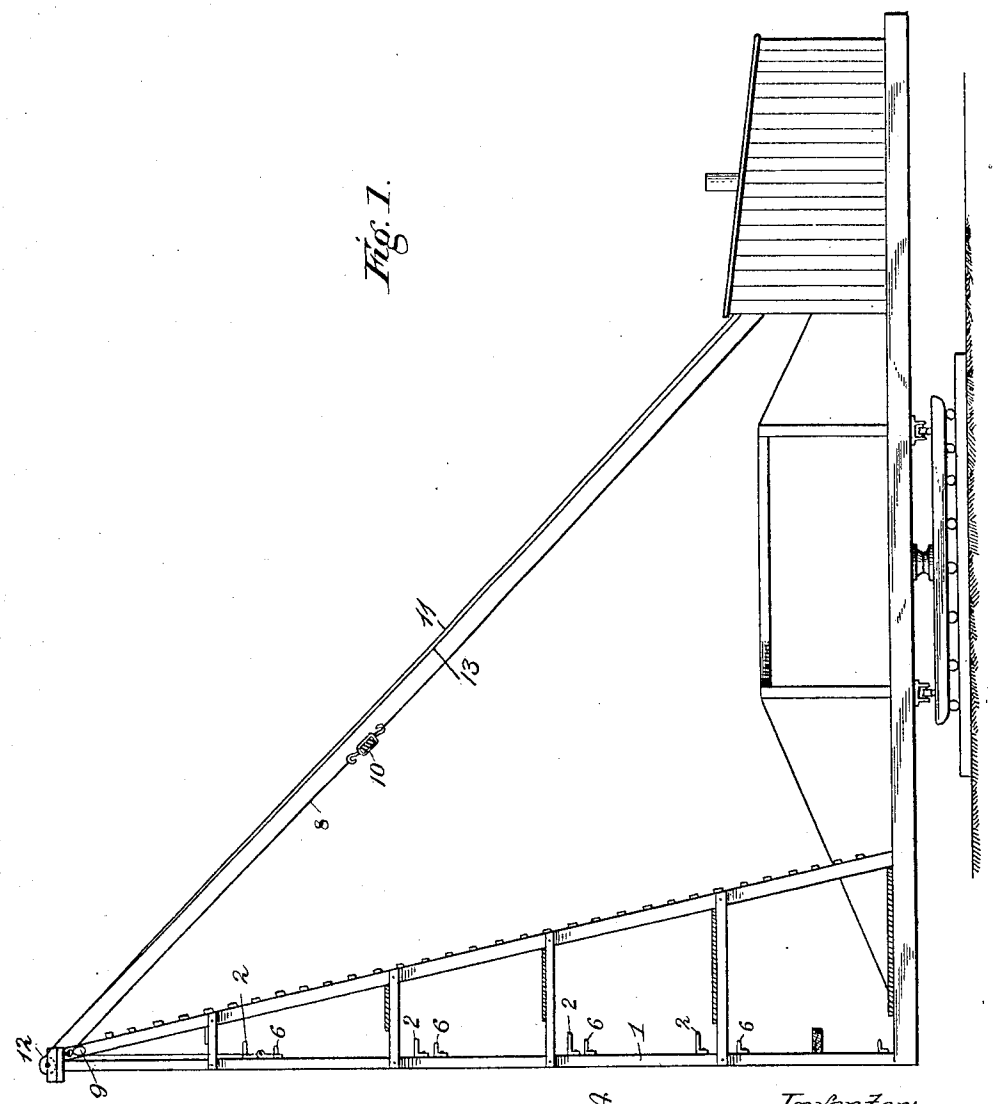
APPLICATION FILED APR. 16, 1908.

912,962.

Patented Feb. 16, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



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Inventor:
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THE NORRIS PETERS CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 2.

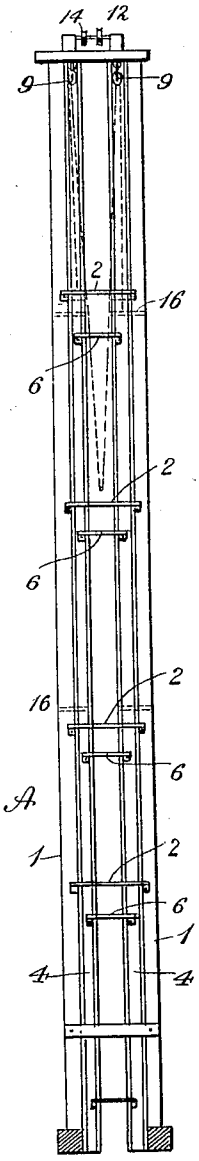


Fig. 4

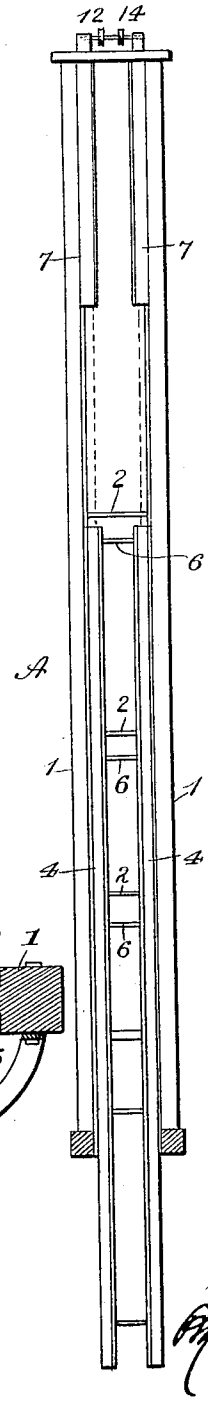
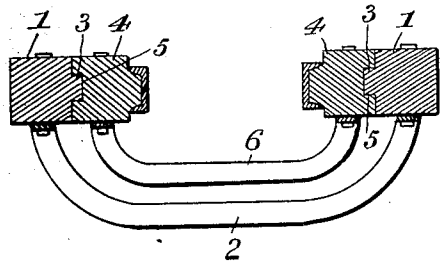


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM J. HOY, OF ST. PAUL, MINNESOTA.

PILE-DRIVER.

No. 912,962. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed April 16, 1908. Serial No. 427,429.

To all whom it may concern:

Be it known that I, WILLIAM J. HOY, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Pile-Drivers, of which the following is a specification.

My invention relates to an improvement in pile drivers and more particularly to the leads or guides for following the piling when the same is being driven into a pit or excavation, or when the driver is mounted on a car, commonly called a track driver.

Under the present method the work is accomplished by the use of what is known as a follower or punch, which is a piece of hard wood of the required length and which process is very slow and the piling is never held firmly to permit of the piling being driven accurately with the follower or punch. Again in many instances the piling is used of such a length as to do away with the use of the follower or punch, and in this case piling has to be cut off after it has been driven and the portion cut away is waste.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claim.

In the accompanying drawings, Figure 1 is a side view; Fig. 2 is a front view of the guides; Fig. 3 is a transverse section, and Fig. 4 is a rear view of the guide.

A represents the pile driver and 1, 1 are the stationary guides mounted thereon. Arch braces 2, 2 are connected to the guides at suitable distances to afford a strengthening means and to prevent spreading. The inner surfaces of these guides are provided with tongues 3. Movable guides 4, 4 are provided with grooves 5, 5, which receive the tongues 3, 3 on the stationary guides 1, 1. The movable guides 4, 4 are connected together at intervals by arch braces 6. These arch braces 6 are smaller than the braces 2 to permit the braces 6 to slide inside of the braces 2 when the guides are moved. Stops 7, 7 are formed on the inner surface and at the upper ends of the stationary guides 1, 1 to limit the upward movement of the movable guides. The movable guides 4, 4 have a rope or cable 8 connected thereto which pass over pulleys or sheaves 9, 9 on the upper ends of the stationary guides. This rope or cable 8 is connected to a winding drum of the engine, not shown, whereby the guides are raised and lowered. This rope or cable is provided with a heavy coil spring connection 10 at or about the center thereof to relieve any shock when the guides are drawn upwardly against the stops 7 of the stationary guide. A cable 11, passing over the sheave 12 at the upper end of the stationary guide is used for raising the piling into the guides, and the cable 13 passing over the sheave 14 is connected to the piling hammer, not shown. The stationary and movable guides can be held together or the movable guides held in any position on the stationary guides when not in use by means of bolts 16 passing through the two guides on each side.

By my invention I am enabled to lower the guides as fast as the piling is driven and the guides are always under the control of the operator, and as the guides are lowered as fast as the piling is driven I am enabled to avoid the waste in the use of piling, as it will not be necessary to use piling which it is necessary to cut after it has been driven.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth, but:—

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

A pile driver comprising stationary and movable guides, braces connecting the stationary guides and braces connected to the movable guides holding them in position, and a guide-way formed on the stationary guide for the movable guide and means for raising and lowering the movable guide.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. HOY.

Witnesses:

GRACE DORAN,

TH. J. MCDERMOTT.