No. 738,312. PATENTED SEPT. 8, 1903.

L. P. FRIESTEDT.

PILE DRIVER BUFFER.

APPLICATION FILED JULY 2, 1903.

NO MODEL.

Fig. 1.

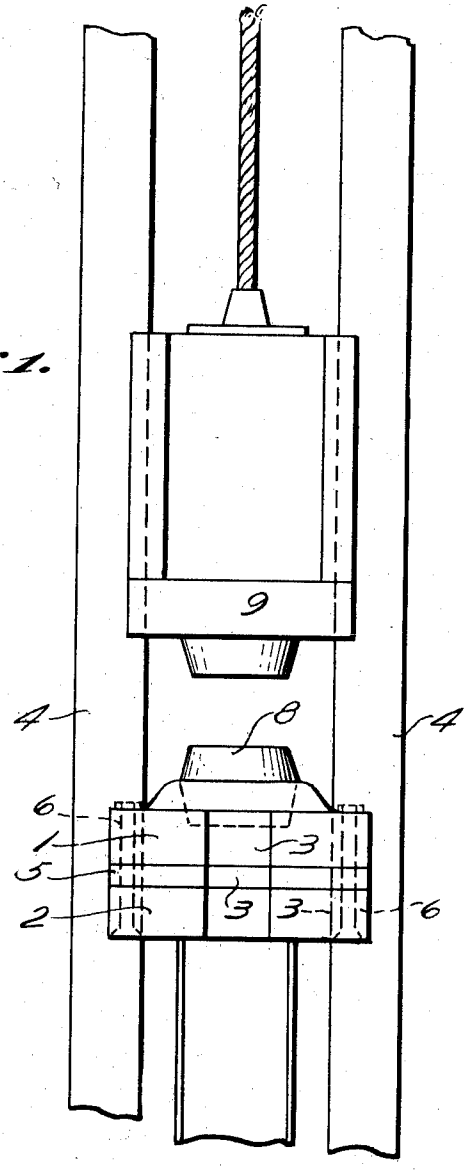
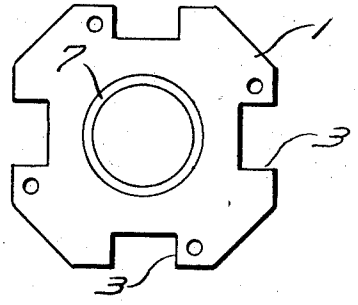


Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 738,312. Patented September 8, 1903.

UNITED STATES PATENT OFFICE.

LUTHER P. FRIESTEDT, OF CHICAGO, ILLINOIS.

PILE-DRIVER BUFFER.

SPECIFICATION forming part of Letters Patent No. 738,312, dated September 8, 1903.

Application filed July 2, 1903. Serial No. 164,036. (No model.)

To all whom it may concern:

Be it known that I, LUTHER P. FRIESTEDT, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pile-Driver Buffers, of which the following is a specification.

My invention relates particularly to a structure for pile-drivers adapted for driving metallic bars to form interlocking channel-bar piling. Its main object is to provide in pile-drivers a suitable structure to act as a buffer for receiving the impact of the striking-head of the pile-driver and preventing the peening effect of a metallic driver-head striking directly upon the ends of the bars when same are being driven.

I accomplish this object by the construction shown in the accompanying drawings, in which—

Figure 1 is a front elevation showing my buffer in connection with a pile-driver head and the guide-rails for same, partly broken away. Fig. 2 is a top plan of the buffer with the central wooden block removed from its seat in the upper metal plate.

In the device shown the plates 1 and 2 are each provided with recesses 3, fitting the guide-rails 4. A block 5, of wood, pulp, or other slightly-resilient material, fits between the plates 1 and 2 and is provided with similar recesses 3. The plates 1 and 2, with the intermediate block 5, are secured together by means of bolts 6, having their heads countersunk in the lower face of the plate 2. In practice I have found that soft pine soaked in water forms a satisfactory filling-block 5. In the upper plate 1 is a socket 7 for receiving the block 8, which is made of wood or other suitable material, for receiving the direct impact of the striking-head 9 of the pile-driver. I have found that a block of hard wood, such as oak, is satisfactory for this purpose. The plates 1 and 2 may be made of cast steel.

The operation of the device shown is as follows: The buffer when connected as shown in Fig. 1 is placed upon the channel-bar piling with its recesses 3 engaging the guide-rails 4, so as to follow the piling when same is driven by means of the striking-head 9. The blocks 8 and 5 serve to cushion the blow. The buffer rests directly on the upper end of the bar which is being driven and transmits the force of the blow of the pile-driver hammer in such manner as to prevent the peening effect and splitting of the bar, which would occur if the hammer struck directly upon the bar.

It will be understood that some of the details of the structure shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details except as hereinafter limited in the claims.

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

1. A pile-driver buffer, comprising a pair of metallic plates having a resilient block bolted between same, one of said plates being provided with suitable recesses for receiving the guide-rails of a pile-driver, and preventing lateral displacement of the buffer, substantially as described.

2. A pile-driver buffer, comprising a pair of metallic plates having a resilient block bolted between same, one of said plates being provided with suitable recesses for receiving the guide-rails of a pile-driver, the upper plate having a recess in its upper face, and a block of softer material than said plate seated in said recess and adapted to receive the impact of the pile-driver hammer, substantially as described.

3. In a pile-driver, the combination of a hammer with the guide-rails for same, and a buffer formed of a pair of metallic plates with a resilient block secured between same, said buffer being slidably mounted between said rails and being provided with means for preventing its displacement laterally of said rail, substantially as described.

4. A pile-driver buffer, comprising a pair of metallic plates, an intermediate block of softer material adapted to act as a cushion, said plates and block being secured together and each being suitably recessed to engage and travel along the guide-rails of a pile-driver, substantially as described.

5. A pile-driver buffer, comprising a pair of metallic plates, a wooden block secured between same and each suitably recessed to engage and travel along the guide-rails of a

pile-driver, said upper plate having a socket in its upper face, and a hard-wood block seated in said socket and projecting above same substantially as described.

6. In a pile-driver, the combination of a pair of vertically-disposed guide-rails; a hammer slidably mounted between said guide-rails; a buffer slidably mounted below said hammer between said rails and independently of said hammer and secured against movement laterally of said rails, said buffer comprising a pair of plates separated by a layer of softer non-metallic material, substantially as described.

Signed at Chicago this 30th day of June, 1903.

LUTHER P. FRIESTEDT.

Witnesses:
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