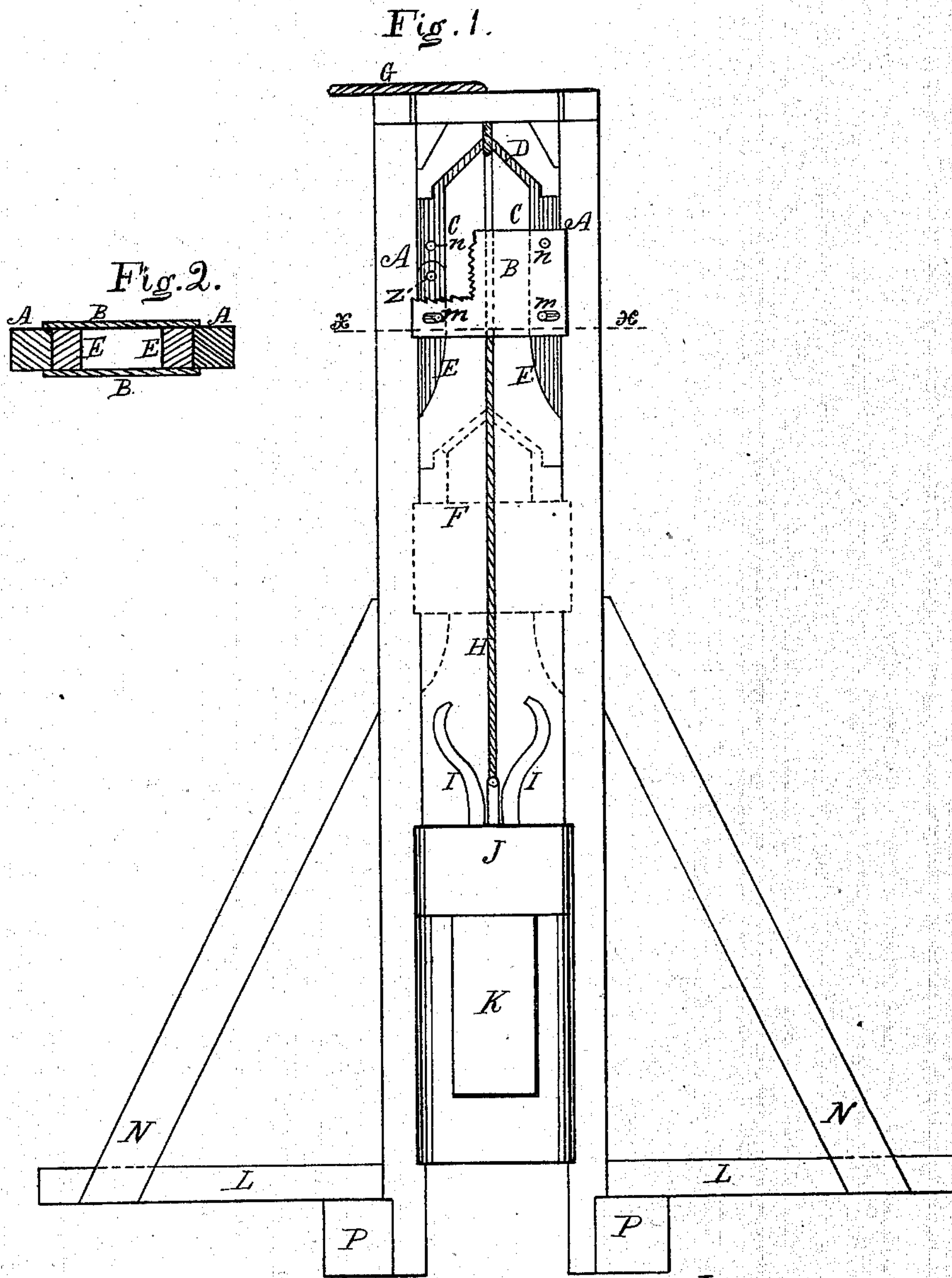


S. E. BAKER.  
Pile-Drivers.

No. 139,853.

Patented June 17, 1873.



Witnesses  
Edmond Burke  
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# UNITED STATES PATENT OFFICE.

STEPHEN E. BAKER, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN PILE-DRIVERS.

Specification forming part of Letters Patent No. 139,853, dated June 17, 1873; application filed December 16, 1872.

*To all whom it may concern:*

Be it known that I, STEPHEN E. BAKER, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Pile-Drivers, of which the following is a specification:

The nature of the present invention consists in providing a pile-driving machine with an adjustable slip-lock, whereby the hammer may be readily detached from the hoisting-lock at any desired point in height, so that the force of the blow to be struck is determined by the distance which the hammer falls, in a high or large machine as well as in a small one; and, further, in providing the slip-lock with hinged arms, whereby said lock is held in position between the guides so as not to slide upward when unlocking the levers of the hoisting-lock.

Pile-driving machines, as now constructed, are provided with stationary slip-locks at the upper ends of the guides, and consequently the same force of blow at each descent of the hammer is necessarily struck, unless the hoisting-lock be loosened from the hammer before it comes in contact with the slip-lock; but in such a case a man must mount the guides of the machine and loosen the elevating-lock with a bar. By means of my adjustable slip-lock this latter operation, which is both laborious and dangerous, is obviated, while at the same time much more labor can be performed.

In the drawings, Figure 1 is an elevation of an ordinary pile-driver provided with my adjustable slip-lock; Fig. 2 a cross-section of the slip-lock taken through the horizontal line *xx*, Fig 1.

L P represent the foundation, N the braces and A A the guides, of an ordinary pile-driving machine. K represents the ordinary hammer, and I J the ordinary hoisting-lock; all of which are old devices in common use, and therefore require no particular description. The adjustable slip-lock consists of a yoke, D, rightly fastened to depending shoulder-pieces C C, and of arms E E pivoted or

jointed to the shoulders at Z, as shown in Fig. 1. The shoulders C C and their depending arms E are held in position to slide between the guides by means of two face-plates, B, which are riveted fast to the shoulders at *nn*, and are provided with slots *m m*, Fig. 1, through which guide-pins project outward from the arms. The plates B are made to embrace the guides A, and one of them is represented as broken away, to show how the arms E are jointed to the shoulders C C, at Z.

The operation is as follows: A rope, G, is fastened to the yoke D and brought over the top of the machine, and fastened in any convenient manner after the slip-lock has been adjusted at the required height. The rope H, which supports the hoisting-lock, is put through the adjustable slip-lock between the plates B, and is operated in the usual manner. When the levers I I of the hoisting-lock come in contact with the insides of the pivoted arms E the latter are forced outward with such force that the friction will hold them in fixed positions, while the levers I are forced inward to unlock their lower ends from the hammer K.

In Fig. 1 the slip-lock is adjusted at the top of the machine; but it may be moved down to any desired point, as, for instance, to the dotted lines F.

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

1. The adjustable slip-lock D C B E arranged and combined with the guides and hoisting-lock of a pile-driver, as described and shown.

2. The adjustable slip-lock D C B, in combination with pivoted arms E for holding the parts in place to unlock the levers I, as set forth.

STEPHEN E. BAKER.

Witnesses:

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