(No Model.)

C. H. MILLER.

CRANK ATTACHMENT.

No. 264,467. Patented Sept. 19, 1882.

Fig. 1.

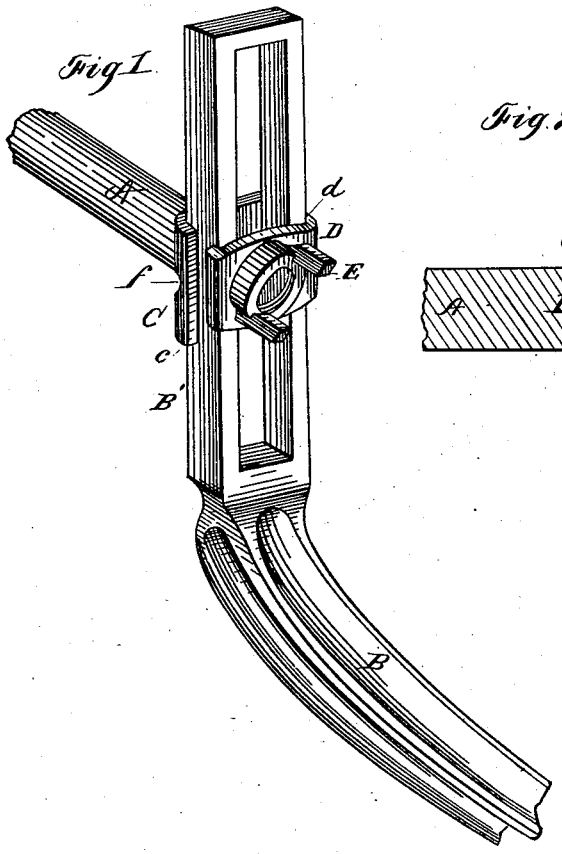


Fig. 2.

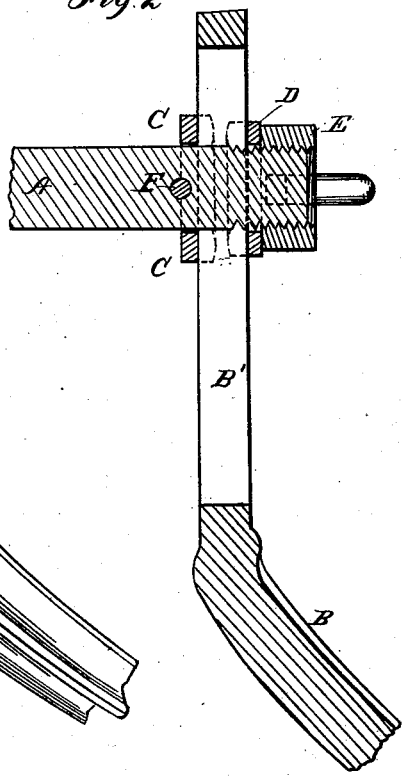


Fig. 4.

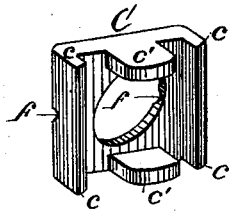
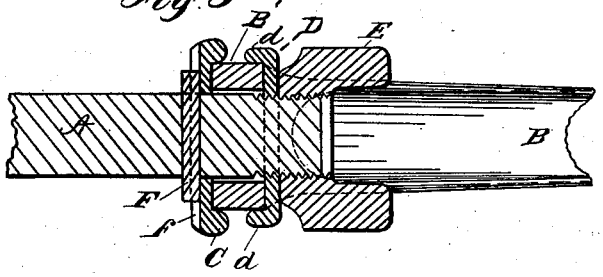


Fig. 3.



Witnesses.
W. R. Edelen,
M. A. Edelen.

Inventor.
C. H. Miller.
Hallock & Hallock
Per

UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF ERIE, PENNSYLVANIA, ASSIGNOR TO F. F. ADAMS & CO., (LIMITED,) OF SAME PLACE.

CRANK ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 264,467, dated September 19, 1882.

Application filed April 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Crank Attachments; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters or figures of reference marked thereon.

This invention relates to the attachment of cranks to shafts; and it consists in providing means for attaching a crank which has a slotted head for the purpose of making its length adjustable.

The object of this invention is to provide an attachment for such a crank which will hold it strongly and firmly, and at the same time make it easy of adjustment.

My device is shown in the accompanying drawings as follows:

Figure 1 is a perspective view of my device as applied to use. Fig. 2 is a vertical section through the same longitudinally. Fig. 3 is a horizontal section through the same longitudinally. Fig. 4 is a detail of the part C.

The construction is as follows:

A is the shaft; B, the crank, and B′ the slotted head of the crank. C and D are flanged clamping-plates, which fit onto the shaft like washers. E is the clamping-nut. F is a pin passing transversely through the shaft. *f* is a groove on the back face of the plate C, and serves as a notch for the pin F to set in. *c c* are the flanges on the plate C, and *d d* are flanges on the plate D.

The crank-head B′ lies between the two plates C and D, and the flanges *c c* and *d d* prevent it from turning between them, and when clamped by the nut E it cannot move lengthwise between them. The notch *f* and pin F prevent the plate C from turning upon the shaft. When the nut E is loosened the crank-head can be moved lengthwise, so as to adjust the length of the crank.

The plate C may be provided with lugs *c′ c′*, if desired, as seen in Fig. 4, but they are not necessary.

It is not essential that the two plates C and D both have flanges, and the plate C may be omitted if the back of the crank-head is notched to fit onto the pin F; but if this is done the crank cannot be as minutely adjusted.

When constructed as shown in Fig. 1 the device is very perfect in its operation.

I am aware that a crank-head having a longitudinal slot and depressions on its back which are adapted to fit over a pin in the crank-shaft to which the crank-head is clamped by means of a nut is old, and therefore make no claim to such a combination; but

What I claim as new is—

1. The combination, with a crank having a longitudinally-slotted head, of a shaft provided with a pin for supporting the crank-head, a plate, D, and a clamping-nut, E, on the end of the shaft, for the purpose set forth.

2. The combination, with the shaft A, pin F, and slotted crank-head B′, of the flanged plates C and D and clamp-nut E, said plate C having a groove, *f*, all substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of April, 1882.

CHARLES H. MILLER.

Witnesses:

JNO. K. HALLOCK,

C. SEVALLEY.