(No Model.)

C. WEBER.

FORGE.

No. 336,074. Patented Feb. 9, 1886.

Fig. 1.

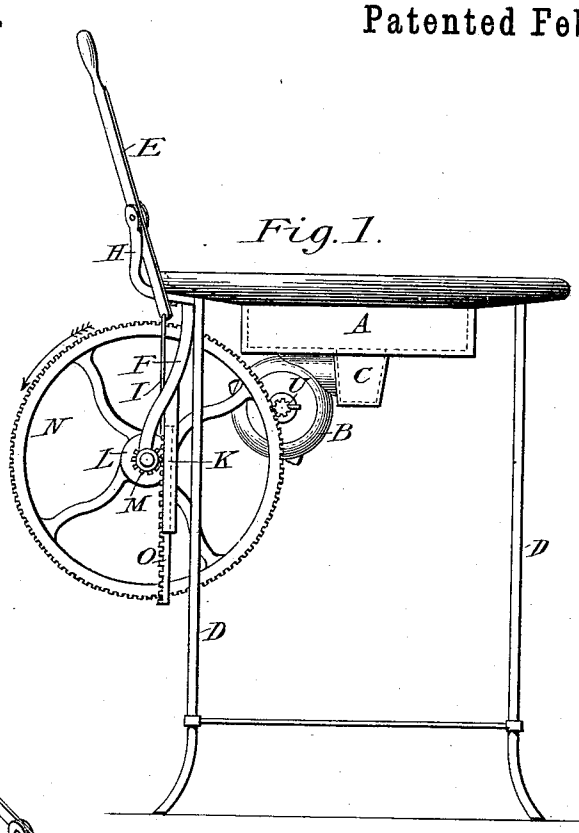


Fig. 2.

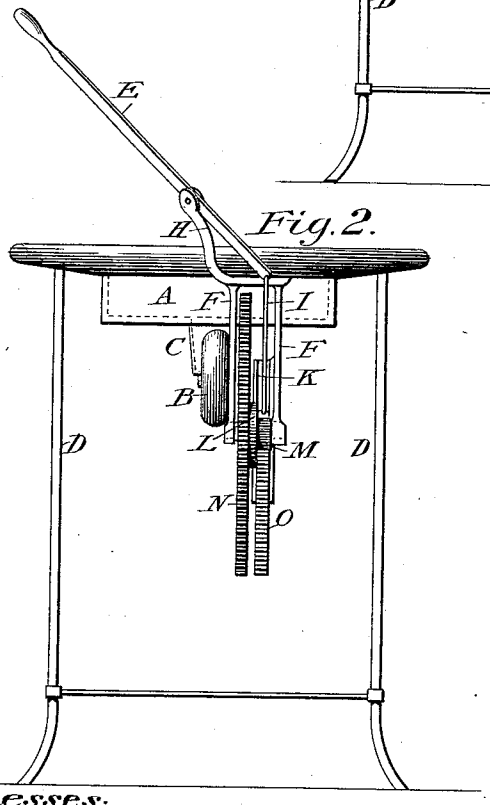


Fig. 3.

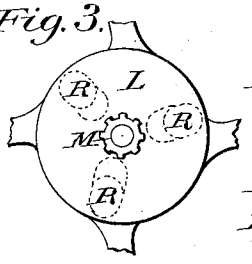
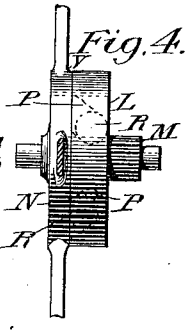


Fig. 4.



Witnesses:
Wm. J. Sharon
R. Marsilliotte

Inventor:
Charles Weber.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES WEBER, OF CLEVELAND, OHIO, ASSIGNOR TO JOSEPH F. POND, OF SAME PLACE.

FORGE.

SPECIFICATION forming part of Letters Patent No. 336,074, dated February 9, 1886.

Application filed March 30, 1885. Serial No. 160,640. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WEBER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Forge, of which the following is a specification.

My invention relates to an improvement in forges, by which I abandon the belt system heretofore used for operating the friction-plates.

The object of my invention is to avoid the annoyance occasioned by the slipping and uncertain grip of the belt and the constant repair of same. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of forge. Fig. 2 is a back view of forge. Fig. 3 is a plan of proposed friction-plate. Fig. 4 is a side view of proposed friction-plate, showing the balls in their different positions.

Similar letters refer to similar parts throughout the several views.

In Figs. 1 and 2, A is the bed or pan of forge, supported by the legs or standards D D. To the pan is substantially fastened the cup C with the blower or fan B, said fan being operated by the driving wheel or gear N, mentioned hereinafter.

In Figs. 1 and 2 will be seen the rack O, which travels in a vertical position in the guard or way K of the hanger-arm F, and operates on the pinion M of the friction-plate L. The rack O is operated by the lever E, which is pivoted in a bearing of the arm H of the hanger F, said rack being connected to lever E by means of a connecting-rod, I. The balls R R R in the cups P P P of the friction-plate L, as shown in Figs. 3 and 4, operate on the friction-face V (as shown in Fig. 4) of the driving gear or wheel N, and cause a momentum of the said wheel in the direction indicated in Fig. 1. The gear or wheel N is hung in the hanger-arms F in such relation to the pinion U of the blower or fan B as to cause a perfect mesh of the teeth. Thus in the downward and upward movement of the lever-handle E the rack O is raised and lowered and operates on the pinion M, which brings the friction-balls R of friction-plate L in contact with the friction-face V of driving gear or wheel N, said wheel operating directly on the pinion U of the fan or blower B.

I am aware that prior to my invention forges have been made with friction-plates with balls therein, and operated by a lever for the purpose of operating a driving-wheel. I therefore do not claim such a combination, broadly; but

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

1. The combination, in a forge, of the lever E, arm H, connecting-rod I, and rack O with the guard or way K, pinion M, and hanger F, substantially as set forth.

2. The combination, in a forge, of the hanger F, arm H, way K, and rack O with pinion M, friction-plate L, and a driving-wheel, as described and set forth.

CHARLES WEBER.

Witnesses:
N. E. DOUHET,
W. E. MORROW.