

(No Model.)

J. W. SHAFER.

CLAY TEMPERING AND EXPRESSING DEVICE FOR BRICK MACHINES.

No. 306,536.

Patented Oct. 14, 1884.

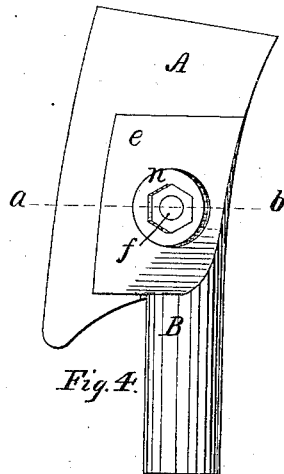


Fig. 4.

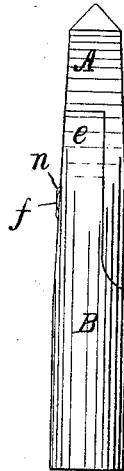


Fig. 3.

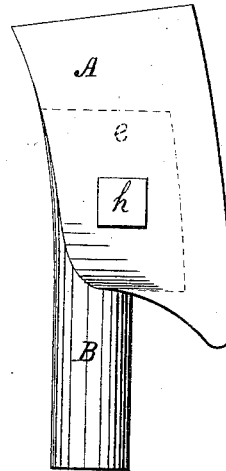


Fig. 2.

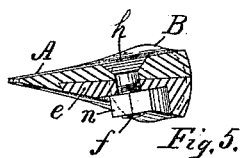


Fig. 5.

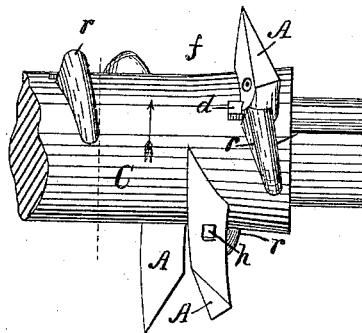


Fig. 1.

WITNESSES:

John W. Shafer,
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INVENTOR

John W. Shafer,
Per Joshua Pusey, his atty.

UNITED STATES PATENT OFFICE.

JOHN W. SHAFER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO CYRUS CHAMBERS, JR., OF SAME PLACE.

CLAY TEMPERING AND EXPRESSING DEVICE FOR BRICK-MACHINES.

SPECIFICATION forming part of Letters Patent No. 306,536, dated October 14, 1884.

Application filed June 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. SHAFER, a citizen of the United States, residing at Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Clay Tempering and Expressing Devices for Brick-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

My improvement relates to the clay-tempering knives used in that class of brick-machines wherein the clay is tempered and forced out from a case through a die by the aid of a series of inclined knives mounted on a shaft rotating within said case—such, for example, as in what are known as "Chambers' Brick-Machines," described in the Letters Patent of Cyrus Chambers, Jr., No. 207,343, dated August 27, 1878, and other Letters Patent granted to him.

The invention consists in constructing said knives in two separable conjoined parts, the one constituting the shank portion, and the other, upon which the greater part of the attrition of the clay operates to wear the blades away, preferably of chilled iron or other comparatively hard or wear-resisting metal, whereby such part may readily be renewed when worn out.

Figure 1 of the annexed drawings represents a portion of the pugging-shaft of a Chambers machine provided with my improved tempering-knives. Fig. 2 is a side elevation of one of the tempering-knives detached, looking at the forward or working side of the blade. Fig. 3 is a view of the back of the knife. Fig. 4 is an elevation similar to Fig. 2, but of the opposite side of the knife. Fig. 5 is a section on the line *a b*, Fig. 4.

The same letters indicate the same parts in the several figures.

A marks the blade, and B its shank, which is adapted to be inserted into a hole in front of the usual "re-enforces," *r*, in the shaft C,

Fig. 1, being secured in place by a key, *d*. The shank broadens out at *e*, forming, in fact, a part of the blade, and is made with an offset, as shown, to which the blade proper, A, which has corresponding offsets, is fitted. Part A is made preferably of chilled iron, and is firmly secured to the expansion *e* of the shank by means of a bolt, *f*, whose head *h* is let into a socket in the front face of the blade, so that it will come flush therewith. A nut, *n*, on the threaded end of the bolt serves to draw together and retain the parts. The bolt, in connection with the manner in which the parts are fitted together, retains the blade A securely in position against the severe lateral and back strain to which it is subjected in plowing through and moving forward the body of clay. When the blade wears away, it is the work of a moment to replace it with another of the same kind.

I claim as new and wish to secure by patent—

1. A tempering-knife for brick-machines, composed of two separable parts, with means for securing said parts together, substantially as and for the purpose specified.

2. A tempering-knife for brick-machines, formed of two separable parts, one of which—that is, the part subjected to the greater wear—is of chilled iron, together with means for securing said parts together, substantially as and for the purpose set forth.

3. In a tempering-knife, the combination of the shank portion and the detachable blade portion, said shank and blade being provided with corresponding offsets, and secured together by means of a bolt, substantially as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature this 15th day of April, A. D. 1884.

JOHN W. SHAFER.

Witnesses:

JAMES R. MAGUIRE,
J. H. CHAMBERS.