

# UNITED STATES PATENT OFFICE.

GERMAIN BERNARD, OF MONTPONT, FRANCE.

## MILLSTONE-DRESS.

SPECIFICATION forming part of Letters Patent No. 306,573, dated October 14, 1884.

Application filed November 12, 1883. (No model.) Patented in France March 19, 1883, No. 153,642.

*To all whom it may concern:*

Be it known that I, GERMAIN BERNARD, a citizen of the French Republic, residing at Montpont, in France, have invented new and useful Improvements in Millstone-Dress, of which the following is a specification.

My system of furrows produces the following advantages: A more considerable quantity of flour is produced by the stones, and the quality thereof is also much improved, as a stone dressed according to this method driven by five-horse power will grind two hundred and fifty kilograms of corn in an hour, while the old dressing allows only, at most, a hundred kilograms. Moreover, this flour is not heated, a greater quantity of air being drawn under the stone.

Figure 1 shows part of a millstone dressed according to my invention. Fig. 2 shows a vertical section of a stone so dressed, taken on line C D, Fig. 1, and it will be there seen that the width of the furrows in this first section of the dress equals that of the land between any two of them. Fig. 3 shows a vertical section of such a stone, taken on line E F, Fig. 1, and it will be seen that the furrows are turned in a direction opposite to those above described, and have no lands between them. These form the second section of the dress. Fig. 4 shows a vertical section of the stone on line A B, Fig. 1, where the bosom of the stone is shown hollowed out, to allow the grain to be introduced. The furrows in the first section of this dress, comprised between the lines I M, Fig. 1—that is, the part called the “skirting” of the stone—are curved to facilitate the delivery of the flour as it is being produced, in order that it may be delivered in a loosely-ground state, as otherwise its quality would not be as good. The furrows of the second section, comprised between the lines H I, Fig. 1, called the “breast” of the stone, are slightly curved in a reverse direction to those of the skirt. These curves, however, are such that if continued inward toward the eye of the stone they would not pass through its central

point, but outside of or somewhat eccentric thereto. The number of these furrows is twice that of the furrows in the first section, as they follow one upon the other without “lands” between them. (See the section, Fig. 3.) Fig. 5 represents in detail a portion of the stone, to more clearly illustrate the slight curvature of the bosom and breast sections in the direction of their length. In the third section (the bosom) the furrows comprised between the lines G H are only a prolongation of the furrows in the second section, the number whereof is reduced to half. The lesser number of furrows in the bosom-section permits, in the same period of time, a larger quantity of grain to be acted upon and expelled than if the furrows were more closely arranged. It also secures a greater draft than if the furrows in both the breast and bosom sections were of like number and continuous.

The grain, when subjected to the action of the bosom-section, is roughly cracked or split. In the breast-section it is reduced to groats and bran, the eccentric furrows in each case facilitating its outward passage to the skirt-section. In the latter, by reason of the regular curvature of the furrows, it is detained for a relatively longer period, and upon the lands, which are of uniform width with the intermediate grooves, it is gradually and effectually reduced to a smooth and uniform consistency.

What I claim is—

The millstone-dress hereinbefore described, consisting of three separate furrow-sections, the furrows of the inner or bosom section and of the breast-section being slightly curved in directions coincident with each other and eccentric to the center of the “eye,” and the outer or skirt section being provided with lands of equal width throughout to the width of the furrows in such section, as set forth.

GERMAIN BERNARD.

Witnesses:

EMILE KAPP,  
LOUIS ADOLPHE MAURIER.

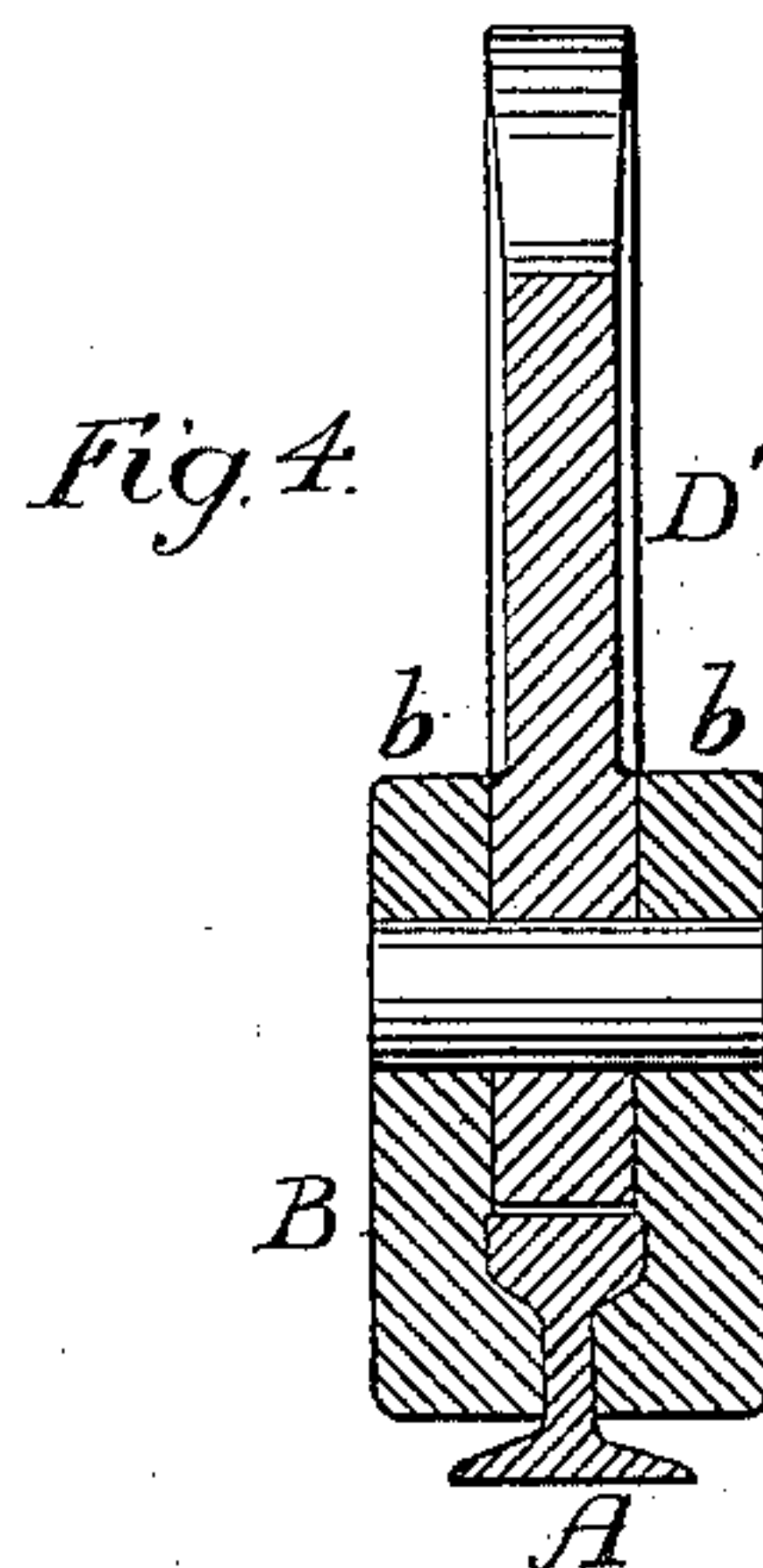
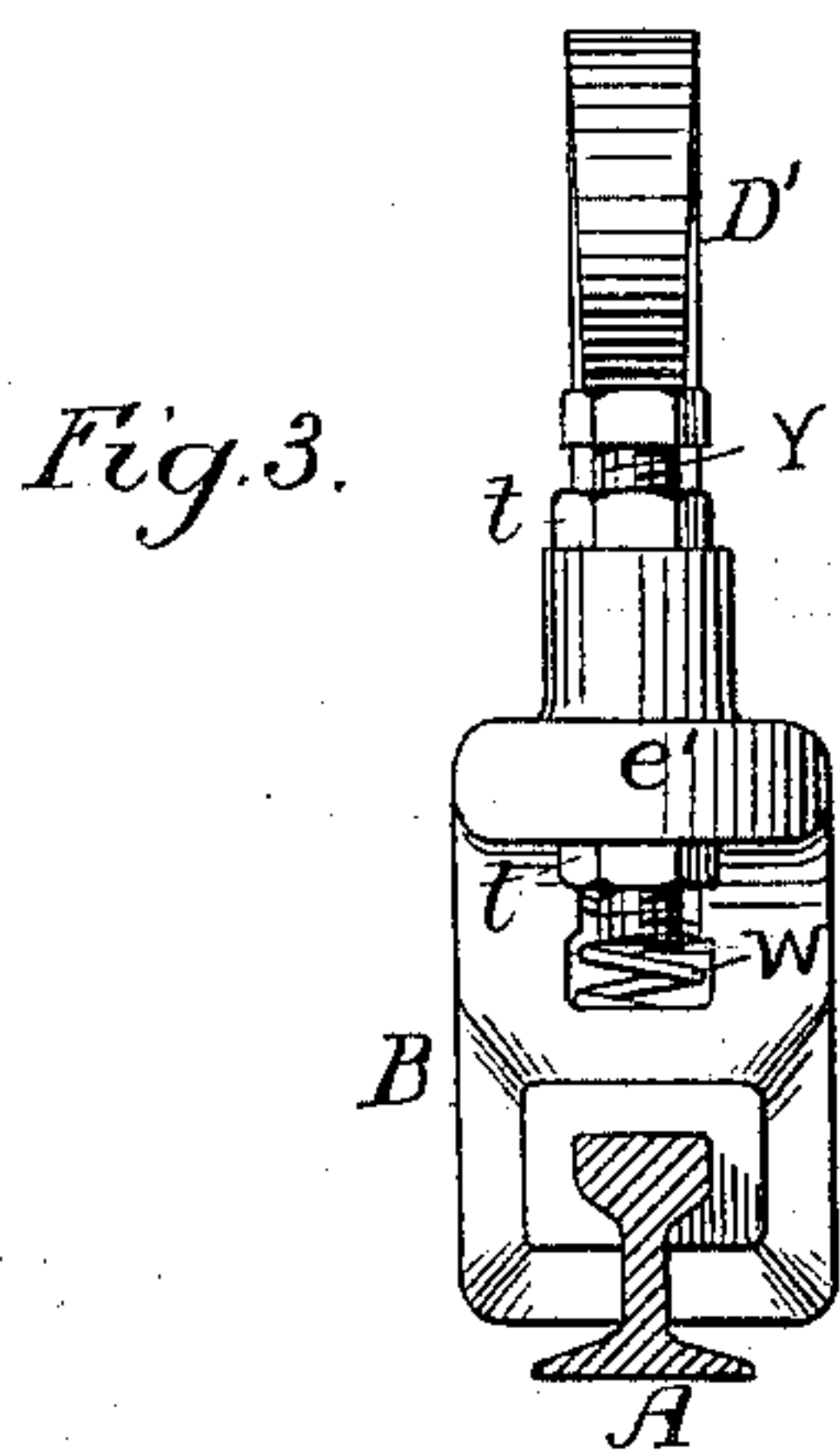
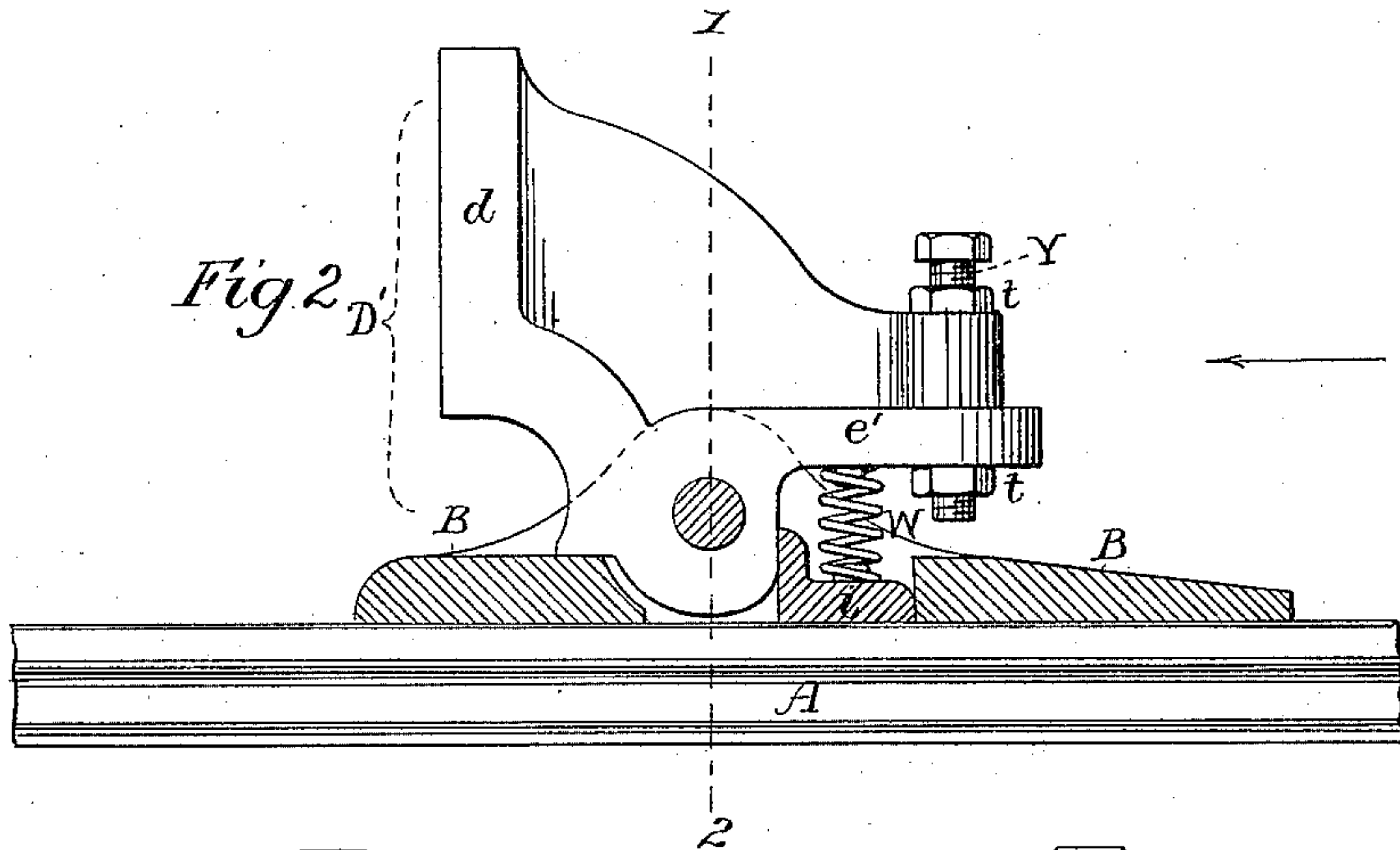
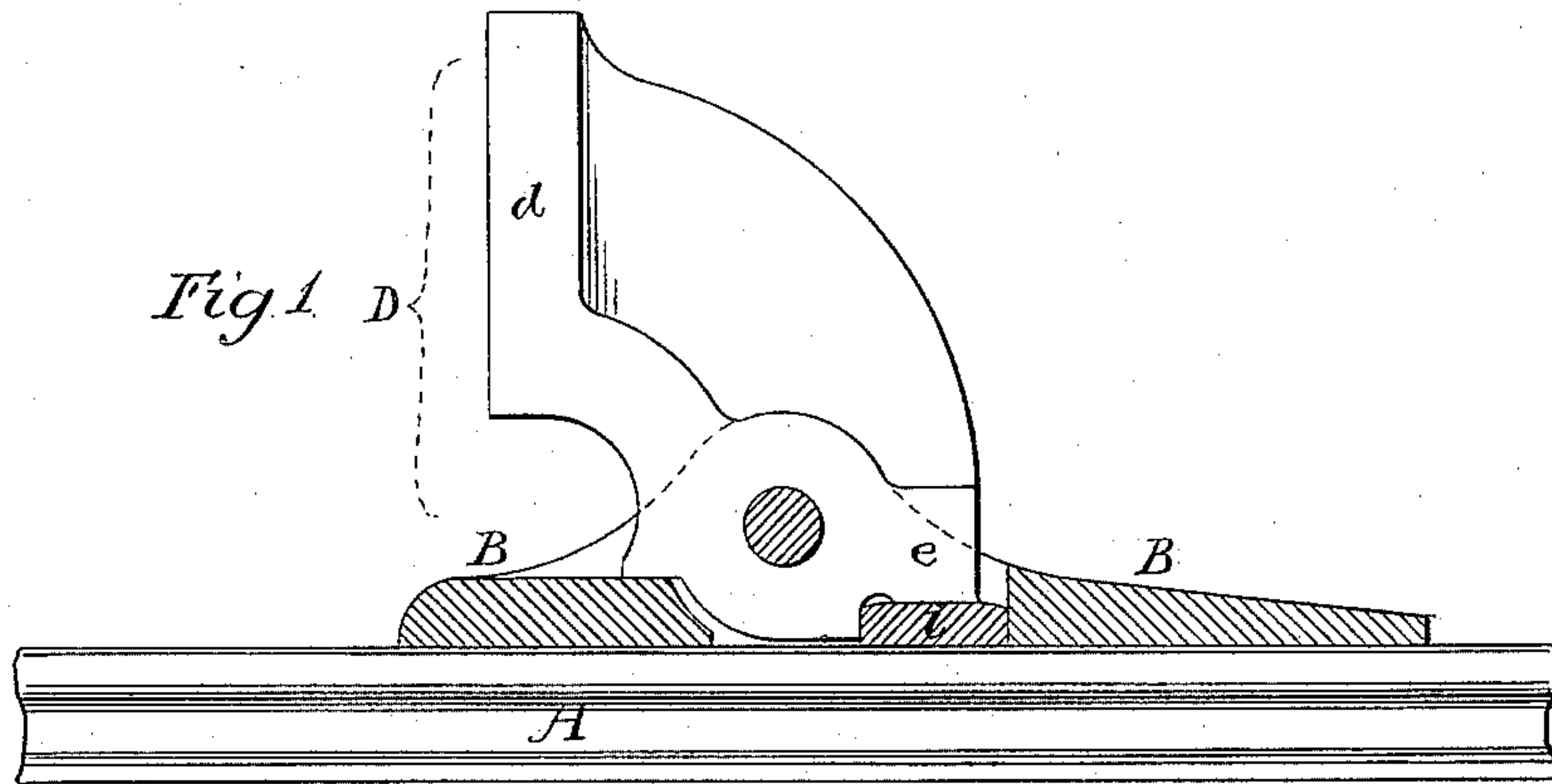
(No Model.)

M. F. BONZANO.

DEVICE FOR ARRESTING LOCOMOTIVES OR CARS.

No. 306,574.

Patented Oct. 14, 1884.



Witnesses:-  
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Howson & Sons