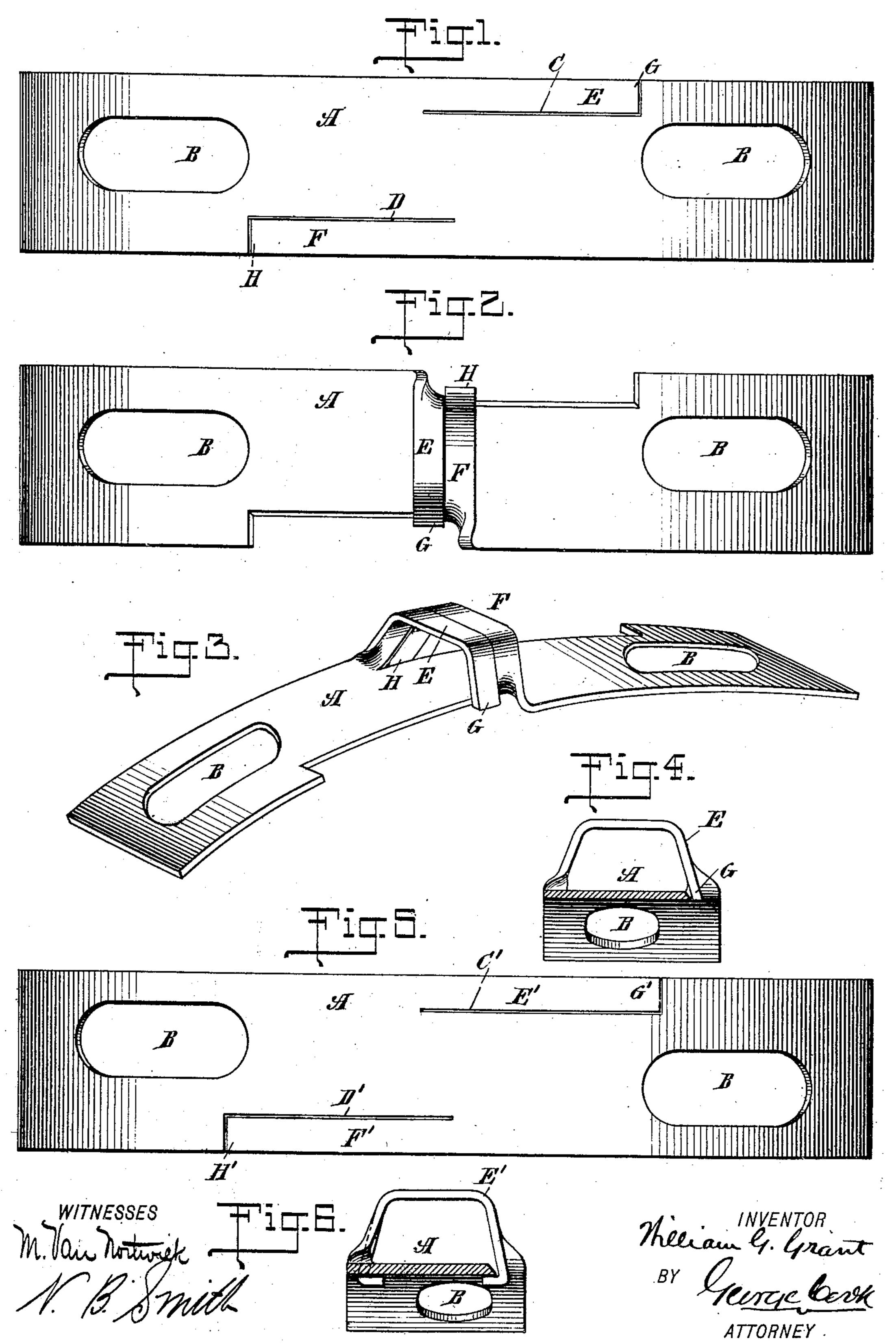
W. G. GRANT.

BRAKE SHOE.

APPLICATION FILED AUG. 31, 1906.



## UNITED STATES PATENT OFFICE.

WILLIAM G. GRANT, OF SUFFERN, NEW YORK, ASSIGNOR, BY MESNE AS-SIGNMENTS, TO AMERICAN BRAKE SHOE & FOUNDRY COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## BRAKE-SHOE.

No. 854,733.

Specification of Letters Patent.

Patented May 28, 1907.

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To all whom it may concern:

Be it known that I, WILLIAM G. GRANT, a citizen of the United States, and a resident of Suffern, in the county of Rockland and State 5 of New York, have made and invented certain new and useful Improvements in Brake-Shoes, of which the following is a specifica-

My invention relates to an improvement in 10 brake shoes, and more particularly to that part or portion thereof commonly known and referred to as the steel back, that is, the plate located at or adjacent to the back of a "steel back shoe," the object being to provide a 15 plate of this character wherein the key-lug may be made integral with the plate, and this without the loss of any material.

A further object of my invention is to produce a plate having the key-lug formed inte-20 gral therewith, and having its free ends so locked to the plate as to obviate all danger of its becoming broken or detached from the

With these and other ends in view, the in-25 vention consists in certain novel features of construction, as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a plate at one stage of its for-30 mation. Fig. 2 is a similar view of the finished plate. Fig. 3 is a perspective view thereof. Fig. 4 is a sectional view of the same. Fig. 5 is a plan view of a modified form of the plate prior to its completion, and 35 Fig. 6 a sectional view of the same after

completion.

Referring to the drawings, A represents a plate usually known and referred to as a steel back," preferably made of sheet steel, 40 or other tough or ductile metal, curved in its length to conform to the curvature of the brake shoe, and somewhat shorter and narrower than the shoe of which it is to form a part, and in which it is to be located at or 15 adjacent to the back thereof. As is usual in plates adapted for like purposes, it is provided with the holes or openings B, through which the cast metal is allowed to flow in order to assist in locking or anchoring the o same in place. The plate between these openings is slitted as shown at C, D, that is, for a short distance at right angles to the side edges of the plate, and for a greater distance

-parallel therewith, thereby forming the strips E, F, one end of each of which remains inte- 55 gral with the plate, and the opposite ends G, H, being free. As illustrated in Figs. 2, 3 and 4, these strips or sections E, F, are slightly twisted where joined to the side edges of the plate A, and bent in opposite directions 60 across the latter in such way as to form a sectional loop or key-lug, the free end of one strip or section extending to the opposite edge where the other strip or section has its end formed integral with the plate. If de- 65 sired, the length of the slits may be increased, as illustrated at C<sup>1</sup>, D<sup>1</sup>, (Fig. 5), whereby the length of the sections E<sup>1</sup>, F<sup>1</sup>, is so increased that the free ends G1, H1, may be bent under the bottom of the plate A, as clearly shown 70 in Fig. 6, thereby locking said ends against any and all movement. A key-lug so formed on a "steel back" is possessed of great strength, and being formed integral with the plate itself, obviates the necessity of assem- 75 bling the parts prior to being placed in the mold, as is the case when the key-lugs are made separate from the plate.

Having fully described my invention, what I claim as new and desire to secure by Let- 80 ters Patent, is:—

1. A brake shoe back comprising a single plate of substantially uniform width, having a key-lug formed from the metal at the side of said plate, substantially as described.

2. A brake shoe back comprising a single plate of substantially uniform width, and a sectional key-lug formed from the metal of said plate, substantially as described.

3. A brake shoe back comprising a plate of 90 substantially uniform width having a sectional key-lug formed from the metal at the opposite sides of said plate, substantially as

4. A brake shoe back comprising a plate of 95 substantially uniform width having portions of its sides bent in opposite directions transversely across said plate, forming an integral key-lug, substantially as described.

5. A back plate for use in brake shoes, 100 comprising a plate having its opposite sides slitted, the slitted portions of the plate being free at one end and bent across the plate forming an integral sectional key-lug, substantially as described.

6. A brake shoe back comprising a plate

and strips connected to the sides of the plate in staggered relation thereto, said strips being bent transversely across said plate forming a key-lug, substantially as described.

7. A back plate for use in a brake shoe, comprising a plate having its opposite sides slitted, said slitted portions being bent in opposite directions across said plate and having their free ends bent under said plate, to forming a sectional integral key-lug, substantially as described.

8. A back plate for use in a brake shoe, comprising a plate slitted for a short distance at right angles to the side edge and for a 15 greater distance parallel therewith, the re-

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sulting strip being bent transversely across the plate to form the key-lug, substantially as described.

9. A brake shoe back comprising a plate and having an integral lug divided trans- 20 versely of its length, substantially as described.

Signed at New York, borough of Manhattan, in the county of New York, and State of New York, this 29th day of August, A. D. 25 1906.

WILLIAM G. GRANT.

Witnesses:

M. VAN NORTWICK, N. B. SMITH.