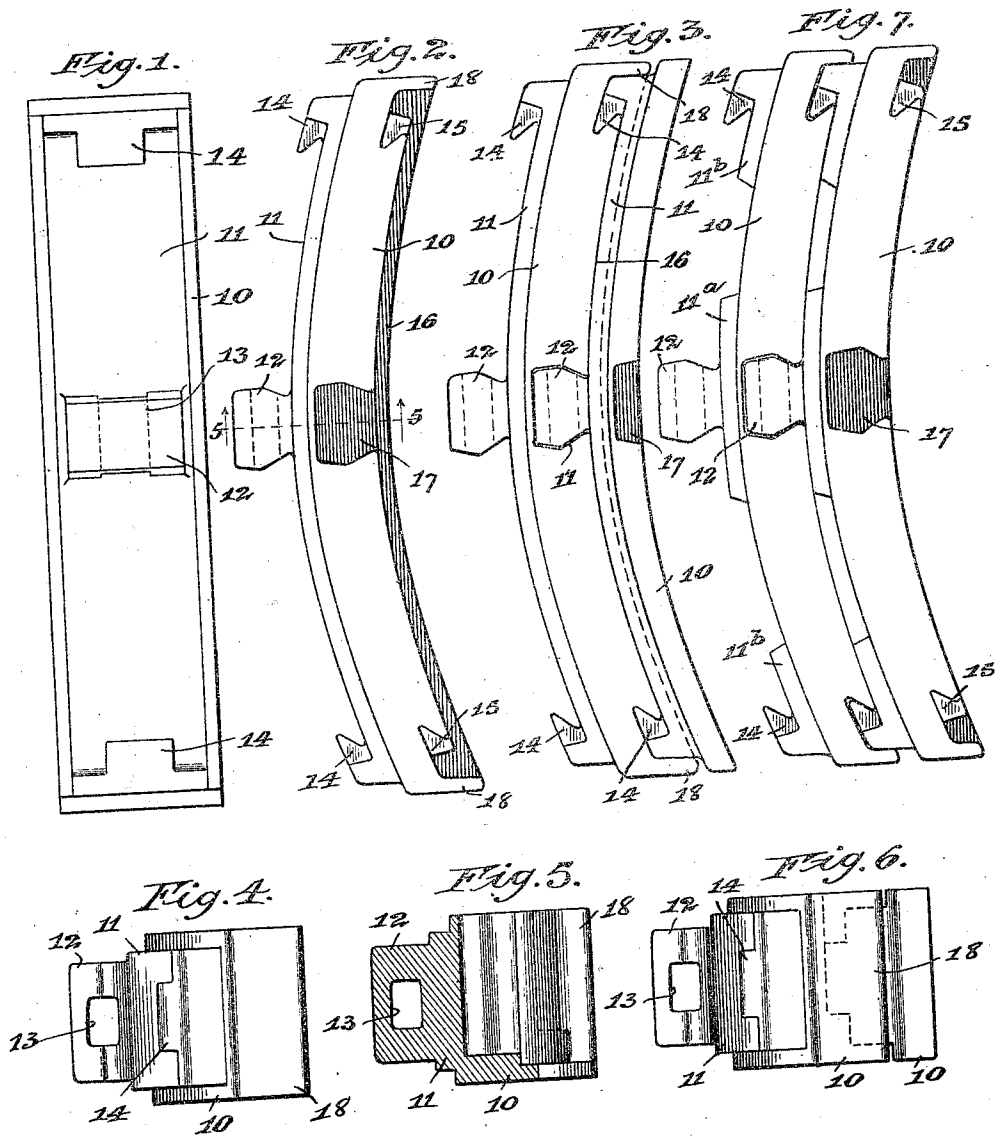


C. W. ARMBRUST.
BRAKE SHOE.
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1,015,771.



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UNITED STATES PATENT OFFICE.

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BRAKE-SHOE.

1,015,771.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES W. ARMBRUST, a citizen of the United States, residing at Crystal Lake, in the county of McHenry, in the State of Illinois, have invented certain new and useful Improvements in Brake-Shoes, of which the following is a specification.

This invention relates to brake-shoes, and my present improvements relate mainly to that type or class of brake-shoes known as "interlocking" shoes, wherein the back and face of the shoe are provided with interlocking means whereby a partially worn shoe can be detached from the head and applied to the wearing face of a new shoe so that the partially worn shoe is completely used up.

My present improvements relate to a shoe of this class wherein the interlocking parts on the back and face of the shoe are so formed that two shoes are capable of attachment by a sidewise sliding movement of one relatively to the other; and the main novel feature of improvement, as applied to such interlocking shoes, resides in the provision of what I term "spacing-lugs" on the back of the shoe-body between the latter and the attaching lugs, which spacing-lugs may extend continuously the full length of the shoe-body or may be interrupted between the central and end attaching lugs. In cooperation with such spacing-lug I may employ a shallow recess in the face of the shoe; or this shallow recess may be omitted, the outer side of the spacing-lug directly engaging the face of a cooperating shoe.

The main purpose or function of the spacing-lug or plate is to prevent danger of injury to the brake-head owing to uneven and excessive wear of the shoe-body.

My invention and its manner of use will be readily understood when considered in connection with the accompanying drawings showing preferred forms thereof, in which—
Figure 1 is a top plan view of my improved shoe. Fig. 2 is a side elevational view thereof. Fig. 3 is a view similar to Fig. 2 but showing a partially worn shoe interlocked with a new shoe. Fig. 4 is an end view of the shoe shown in Figs. 1 and 2. Fig. 5 is a sectional view on the line 5—5 of Fig. 2. Fig. 6 is an end view of the interlocked shoe shown in Fig. 3. Fig. 7 is a side elevation of two complete interlocked

shoes in which the shallow recess on the face of the shoe shown in Figs. 2 and 3 is omitted.

Referring first to the form of shoe shown in Figs. 1 to 6 inclusive, 10 designates the main body of the shoe, on the back of which and approximately co-extensive both longitudinally and laterally thereof is what I term a spacing-lug or plate 11, preferably cast integral with the shoe-body 10. Upon and integral with the upper side of the spacing-lug 11 are formed a central attaching lug 12 having the usual key-way 13 formed therethrough and end lugs 14 beveled or undercut on their lower sides to interlock with correspondingly shaped recesses 15 formed in the face of the shoe near its ends. The recesses 15 are open on one side of the shoe but preferably closed on the opposite side by the opposite wall of the shoe which preferably extends somewhat lower than the side of the shoe through which the open ends of the recesses 15 are formed, thereby creating, in effect, a shallow recess 16 extending approximately the full length of the shoe adapted to receive the spacing-lug 11 of a cooperating shoe, as clearly shown in Fig. 3. The face of the shoe is also formed with a central recess 17 having the same contour as the central attaching lug 12 and cooperating with the latter and with the end attaching devices in securing a worn shoe or partially worn shoe to the face of a new shoe. It will be noted that the outer ends of the recesses 15 are closed by end walls 18 which extend across the ends of the shallow recess 16 and engage the outer sides of the end lugs 14 in such a manner as to prevent a possible broken fragment of the shoe from falling to the ground when in service.

In Fig. 7 I have shown, in lieu of the continuous or uninterrupted spacing-lug 11, a broken or interrupted lug comprising a central portion 11^a between the central fastening lug 12 and the body 10 and end portions 11^b between the end fastening lugs 14 and the body of the shoe. In this figure I have also omitted the shallow recess 16, making the opposite side walls of the shoe-body of equal width.

It will be evident to those skilled in the art that slight changes and variations in the forms and dimensions of the parts herein shown and described can be made without

involving any difference in principle of operation or the manner of action and manipulation. Hence, I regard such minor changes and variations as within the scope of the invention as defined in the appended claims.

I claim—

1. A brake-shoe comprising a body-member, a continuous spacing lug on the back of said body-member approximately coextensive longitudinally with the latter, and a fastening lug on the outer side of said spacing lug, substantially as described.
2. A brake-shoe comprising a body-member, a continuous spacing lug on the back of said body-member approximately coextensive both longitudinally and laterally with the latter, and intermediate and end fastening lugs on the outer side of said spacing lug, substantially as described.
3. An interlocking brake-shoe comprising a body-member formed with a locking recess in its face, a spacing lug on its back, and a locking lug on the outer side of said spacing lug, substantially as described.
4. An interlocking brake-shoe comprising a body-member formed with intermediate and end-locking recesses in its face, a spacing-lug on its back, and intermediate and end locking lugs on the outer side of said spacing lug, substantially as described.
5. An interlocking brake-shoe comprising a body-member formed with a spacing lug on its back, a locking lug on the outer side of said spacing lug, a recess in its face to receive the spacing lug of another similar shoe, and an additional recess to receive the locking lug of said other similar shoe, substantially as described.
6. An interlocking brake-shoe comprising a body-member formed with a spacing lug

on its back, intermediate and end locking lugs on the outer side of said spacing lug, a recess in its face to receive the spacing lug of another similar shoe, and additional recesses to receive the locking lugs of said other similar shoe, substantially as described.

7. An interlocking brake-shoe comprising a body-member, a continuous spacing lug on the back of said body-member approximately coextensive both longitudinally and laterally with the latter, intermediate and end fastening lugs on the outer side of said spacing lug, a recess in the face of said body-member adapted to receive the spacing lug of another similar shoe, and additional recesses to receive the locking lugs of said other similar shoe, said recesses being open on one side of the shoe and closed on the other side thereof, substantially as described.

8. An interlocking brake shoe comprising a solid body member formed with a centrally disposed undercut locking lug, a pair of undercut locking lugs located at either side of said centrally disposed lug and provided on its face with a central recess having undercut walls for locking engagement with a centrally disposed lug on a similar shoe, and recesses spaced from said central recess having undercut walls for locking engagement with cooperating lugs on said similar brake shoe.

In testimony whereof I have hereunto subscribed my name in the presence of two witnesses.

CHARLES W. ARMBRUST.

Witnesses:

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DAISY C. THORSEN.