

No. 743,793.

PATENTED NOV. 10, 1903.

E. L. ADREON, JR.  
BRAKE SHOE KEY BOLT.  
APPLICATION FILED APR. 7, 1903.

NO MODEL.

Fig. 1.

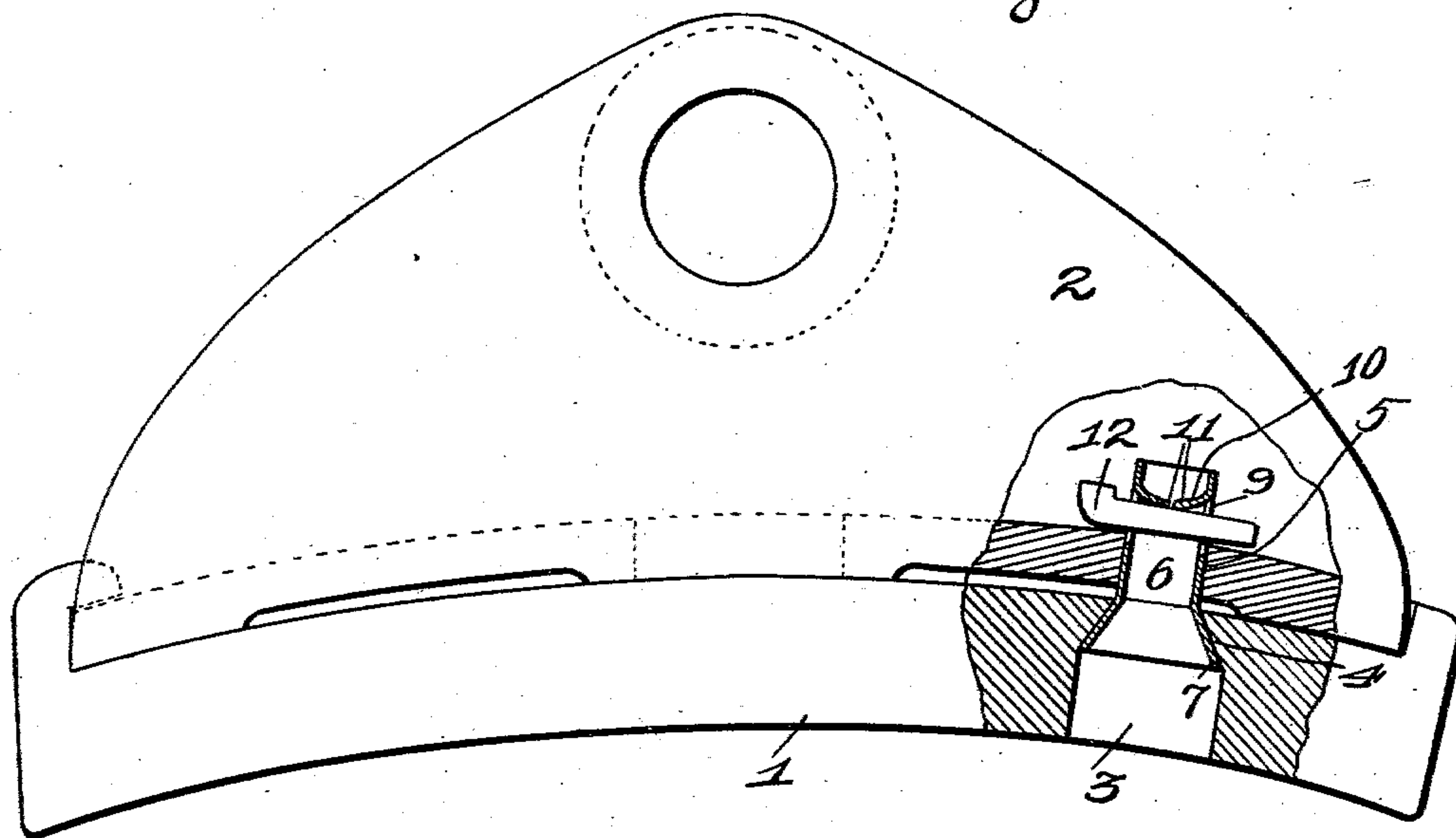


Fig. 2.

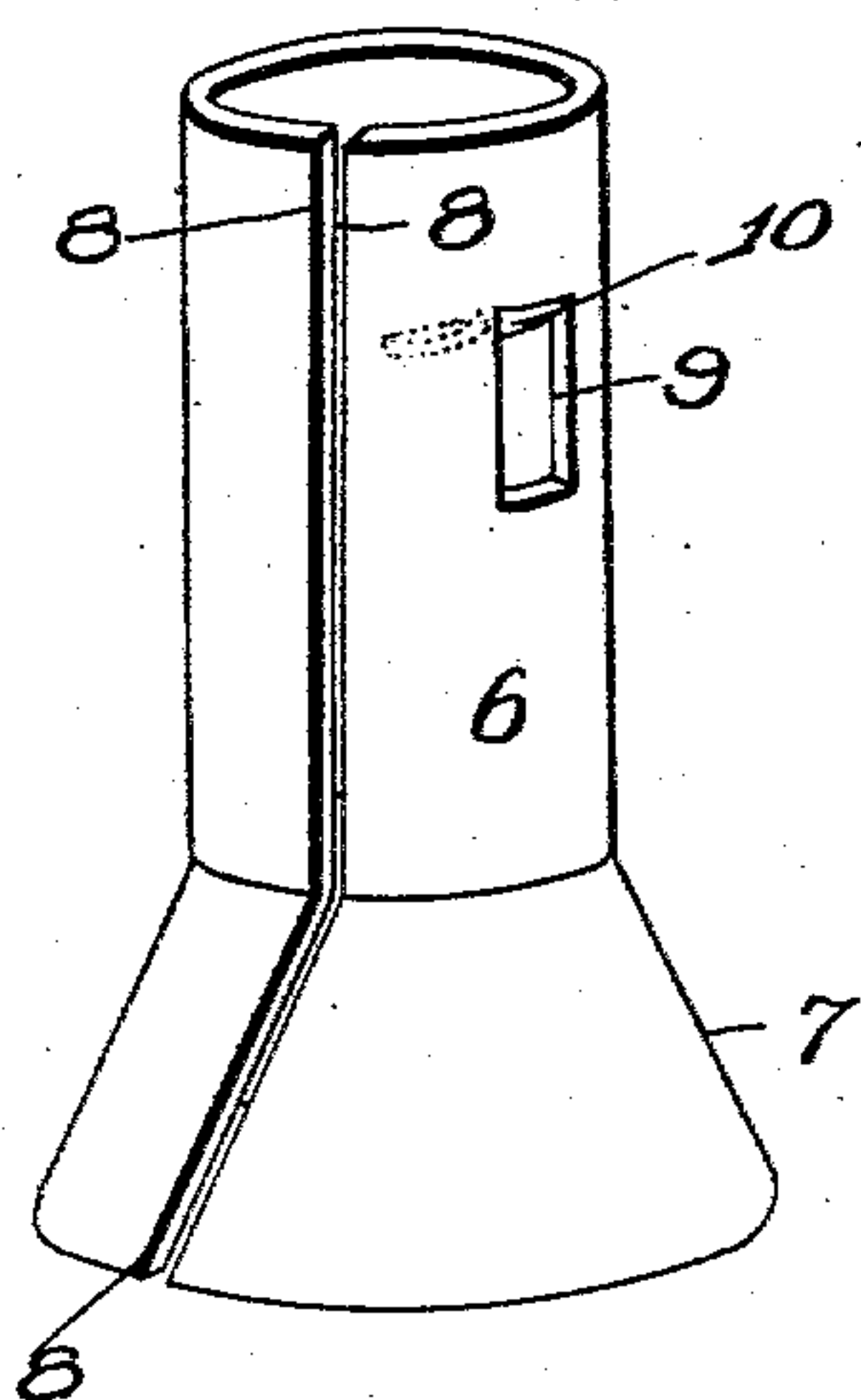
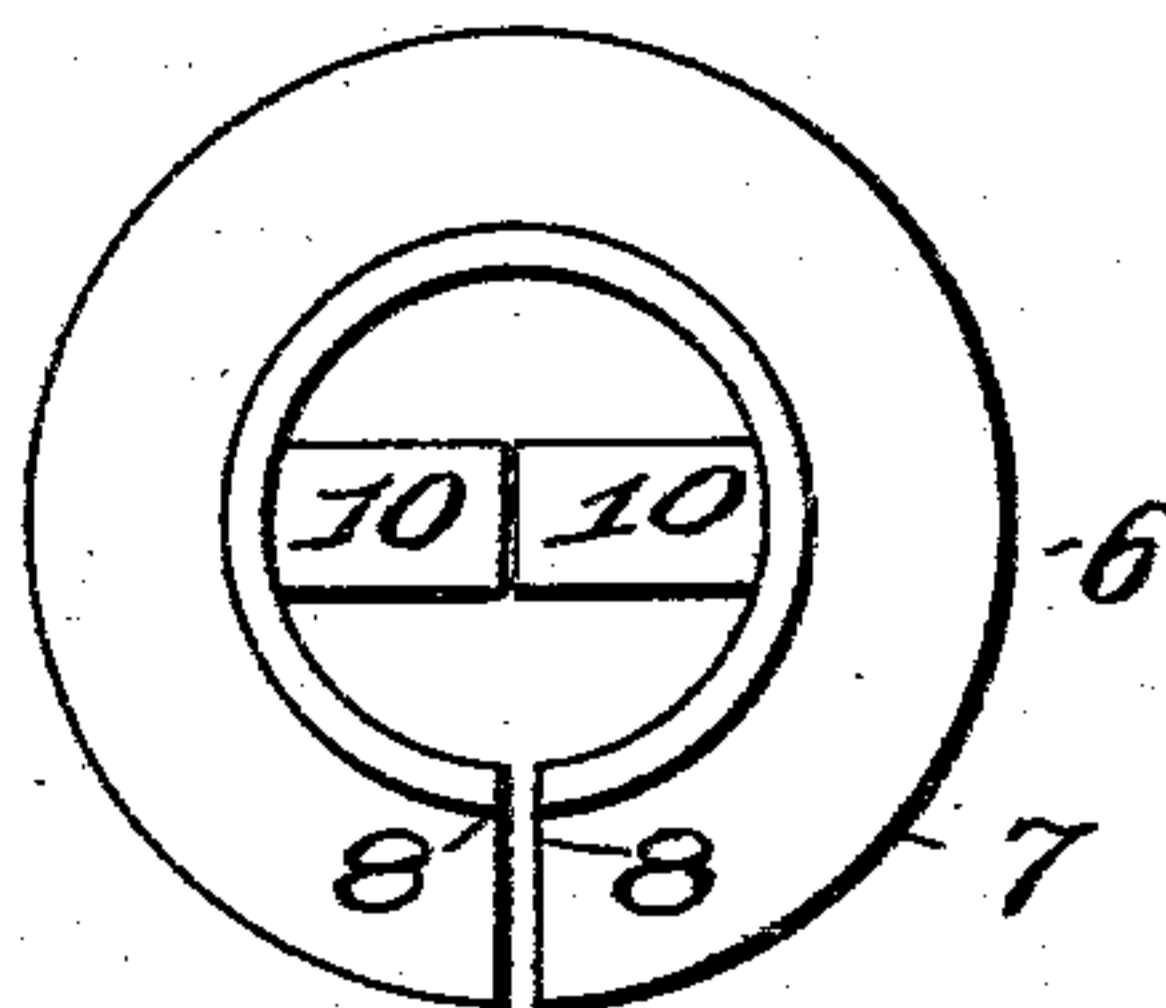


Fig. 3.



Witnesses  
Alfred E. Eick  
Melvin

Inventor  
Edward L. Adreon Jr  
by Sigdon & Longan & Hopkins attys.



# UNITED STATES PATENT OFFICE.

EDWARD L. ADREON, JR., OF ST. LOUIS, MISSOURI.

## BRAKE-SHOE KEY-BOLT.

SPECIFICATION forming part of Letters Patent No. 743,793, dated November 10, 1903.

Application filed April 7, 1903. Serial No. 151,548. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD L. ADREON, Jr., a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Brake-Shoe Key-Bolts, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in brake-shoe key-bolts; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

In the drawings, Figure 1 is a side elevation of a brake-shoe head with a brake-shoe secured to the same, parts being broken away, showing my improved key-bolt in section. Fig. 2 is a side elevation. Fig. 3 is a top plan view.

The object of my invention is to construct a key-bolt which is adapted to hold the shoe to the brake-shoe head by a resilient engagement—that is to say, the shoe is resiliently or yieldingly connected to the brake-shoe head.

Referring to the drawings, 1 indicates the brake-shoe, and 2 the brake-shoe head. The brake-shoe 1 is provided with the usual key-bolt opening 3, said opening being provided with the usual tapering or flaring walls 4. The brake-shoe head 2 is provided with the usual hole or opening 5. 6 indicates my improved key-bolt, which is made of plate-steel rolled. Said key-bolt 6 is cylindrical, as shown, and is provided with a flaring or funnel-shaped portion 7, it being understood in this connection that the key is made out of a continuous or integral piece of steel and when formed as illustrated in the drawings is virtually an open-seam cylinder provided with the flaring or funnel-shaped portion 7. The edges 8 of the bolt normally are asunder. Said key-bolt is provided with a locking-key opening 9, and said opening 9 is formed in the bolt by cutting or stamping the tongues 10 directly from the metal of which the bolt 6 is composed. In forming the locking-key opening 9 there are two tongues 10 stamped from the key-bolt 6, and the free ends 11 of said tongues are disposed in an abutting po-

sition when they are bent inwardly on the inside of the bolt 6, as illustrated in Figs. 1 and 3. Said tongues 10 are resilient, and when the locking-key 12 is inserted in the locking-key opening 9 the said spring-tongues 10 impinge or bear upon the locking-key 12.

It will be seen from the foregoing description and illustration that the bolt 6 is compressible—that is, the edges 8 may be drawn toward each other or they may be adjusted from each other.

When the key-bolt 6 is inserted in the opening in the brake-shoe and in the brake-shoe head or when it is used in an operative position, the special construction of the bolt 6 produces between the shoe and the brake-shoe head a resilient or yielding connection, which is very desirable in securing the brake-shoe to the brake-shoe head.

When the funnel-shaped portion 7 of the key-bolt 6 is drawn into the flaring walls 4 of the opening in the brake-shoe, if enough pressure is applied to said bolt 6 the edges 8 will be drawn together. The key 12 being inserted and impinging against the spring-tongues 10 will also produce a yielding connection.

The old-style brake-shoe key-bolts rigidly held the brake-shoe to the brake-shoe head—that is to say, by the use of the old-style brake-shoe key-bolt a rigid connection is produced between the brake-shoe and the brake-shoe head which is very undesirable; and the prime object of my invention is to produce a brake-shoe key-bolt whereby a yielding or resilient connection may be obtained between the brake-shoe and the brake-shoe head, and in order to accomplish this it is thought necessary to have the head of the key-bolt yielding or resilient and also to have the locking-key impinge against the resilient or yielding portion carried by the bolt. By having the head of the bolt resilient the key-opening 9 is rendered virtually adjustable as far as its position relative to the brake-shoe head is concerned. In the bolt which I have constructed not only the head or funnel-shaped portion 7 is compressible and expandible, but the shank portion is also compressible and expandible.

I have shown and described my brake-shoe key-bolt having a resilient head, a resilient



shank or stem, and a resilient key-seat for the locking-key 12. It is obvious that a certain amount of resiliency may be obtained by having the key-bolt provided with either  
5 a resilient head, shank, or key-seat. In other words, the key-bolt with a resilient head would effect a certain amount of resiliency, or a key-bolt with a resilient shank would do likewise, or a key-bolt with a resilient key-  
10 seat would produce a certain amount of resiliency.

Having fully described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

15 1. As an article of manufacture, a brake-shoe key-bolt having a resilient head portion and a locking-key opening provided with a resilient wall, substantially as specified.

20 2. As an article of manufacture, a brake-shoe key-bolt in the form of an open-seam tube and provided with a funnel-shaped resilient head and a locking-key opening pro-

vided with a resilient wall, substantially as specified.

3. As an article of manufacture, a brake-shoe key-bolt having a shank, a locking-key hole or seat, and a resilient head, substantially as specified.

4. As an article of manufacture, a brake-shoe key-bolt having a head, a resilient shank and locking-key hole, substantially as specified.

5. As an article of manufacture, a brake-shoe key-bolt having a shank, a head and a resilient locking-key seat, substantially as  
35 specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

EDWARD L. ADREON, JR.

Witnesses:

ALFRED A. EICKS,  
JOHN C. HIGDON.