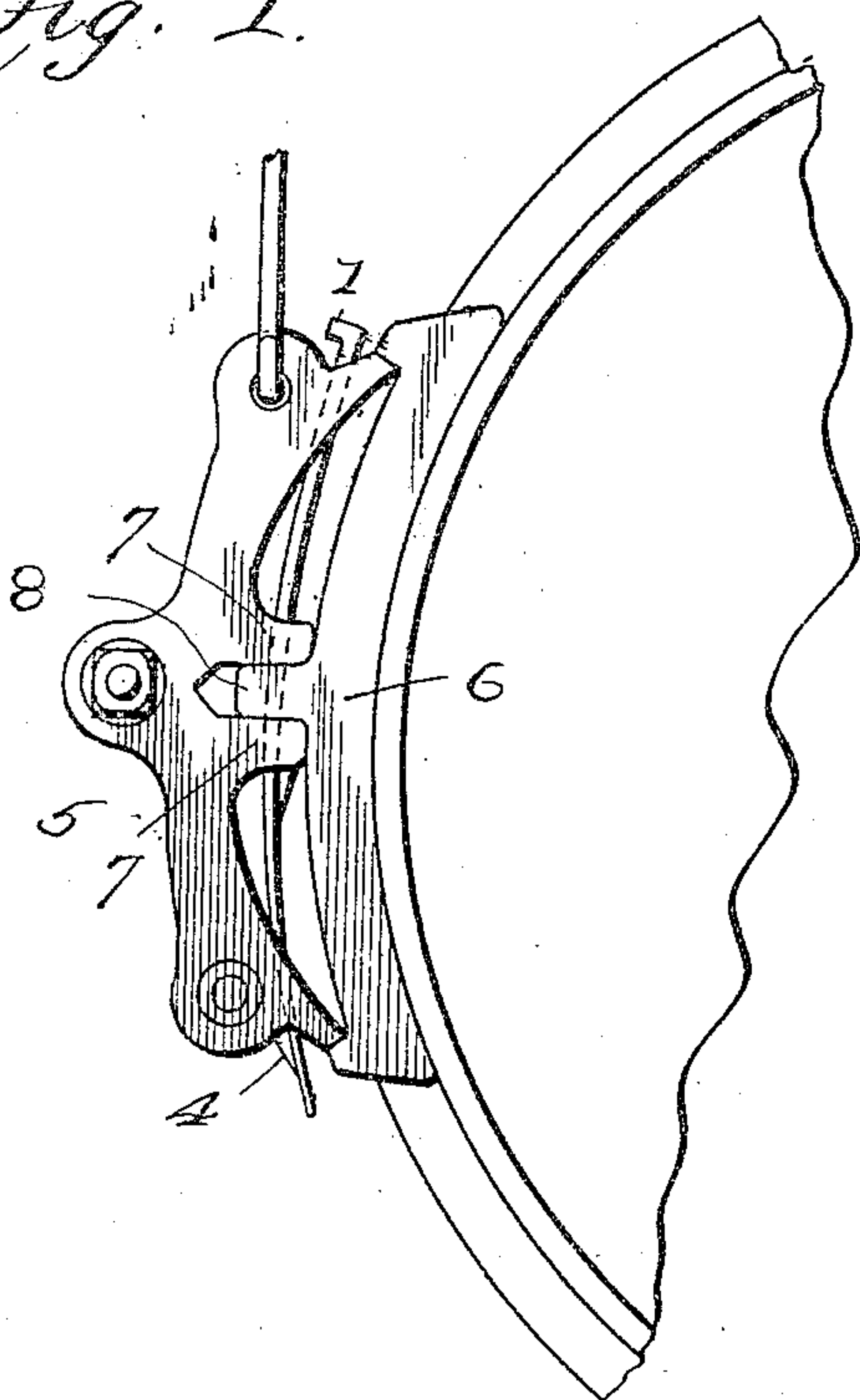


No. 854,475.

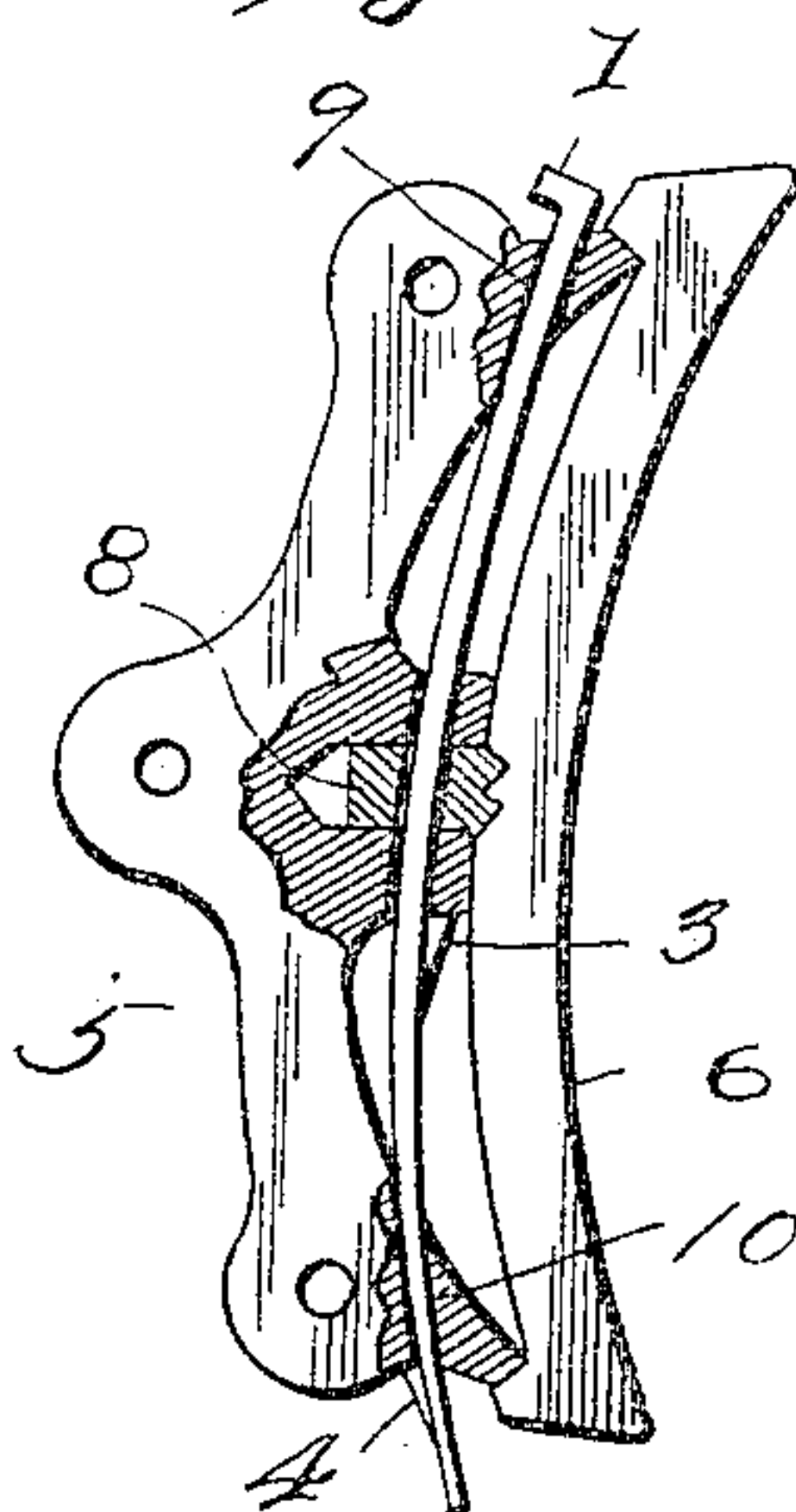
PATENTED MAY 21, 1907.

D. H. FAIRBANKS.  
KEY FOR BRAKE SHOES.  
APPLICATION FILED OCT. 23, 1906

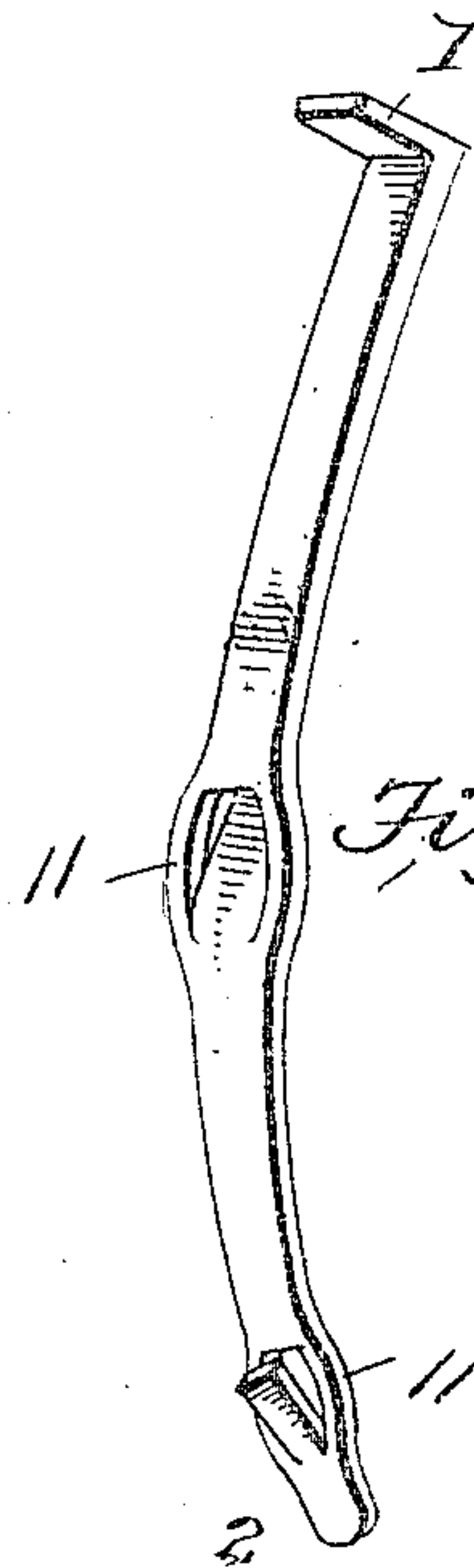
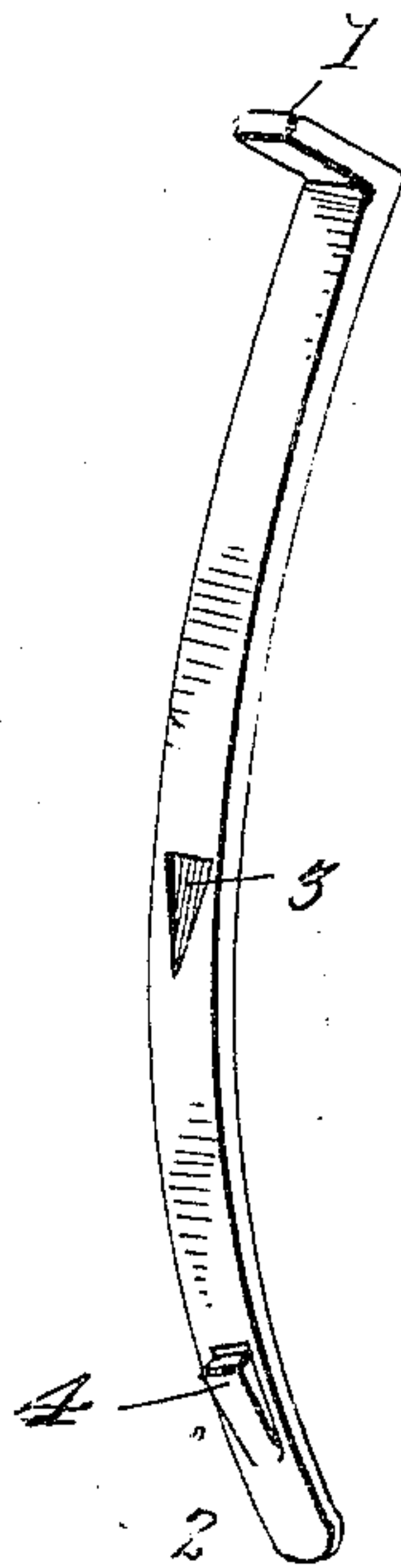
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses

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# UNITED STATES PATENT OFFICE.

DAVID H. FAIRBANKS, OF NASHVILLE, TENNESSEE.

## KEY FOR BRAKE-SHOES.

No. 854,475.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed October 23, 1906. Serial No. 340,229.

*To all whom it may concern:*

Be it known that I, DAVID H. FAIRBANKS, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Keys for Brake-Shoes, of which the following is a specification.

My invention relates to improvements in keys for brake shoes, and has for its object, to produce a key of this sort, of simple and economical construction which will securely lock the brake shoe to the brake head, and further, to provide means for automatically locking the key when seated in the brake head and block so that the parts cannot accidentally become disengaged.

With these objects in view, my invention comprises a key having lugs or barbs on opposite faces thereof to engage abutments on the brake head and shoe to thereby lock the key in place, and the invention also consists in certain other novel features of construction, combination and arrangement of parts substantially as disclosed herein.

Figure 1, is a side elevation of an ordinary brake head and shoe, having my improved key applied thereto, a portion of the wheel being shown. Fig. 2, is a similar view of the head and shoe, with parts broken away to more fully illustrate the key mounted therein. Fig. 3, is a perspective view of the key in detail. Fig. 4, is a similar view of the key in modified form.

My improved key is preferably stamped or otherwise produced from a single piece of sheet metal, and the entire key may be produced by the one stamping or forging operation, so that in the manufacture of my key, the cost of production is reduced to a minimum. The key is provided with the usual angular head or offset portion 1, at one end, and preferably tapers both in width and thickness toward the smaller end 2, but the tapering form of the key is not absolutely necessary, and if so desired, the key may be of the same width and thickness for its entire length. The key is bowed or bent in the form of an arc as usual, and about midway its length; on the inner or concave side, is formed with the struck-up lug, barb or beard 3. At its lower or smaller end and on the outer or convex side, the key is provided with another lug or barb 4, similar to the first

but on the opposite side of the key, both of the lugs having their detached or free ends toward the head of the key. The lugs just described, are in reality offset spring tongues which are punched or partially severed from the key, having their upper edges extending above the face of the key.

The brake head 5, and brake shoe 6, are both of usual construction, the former having the pair of ears or lugs 7, and the latter, the lug 8, to be engaged between said ears, both the lug and ears having openings there-through to receive the key. The key when applied to the brake head, passes through an opening 9, in the upper portion of the head, thence through the corresponding openings in the head and shoe, and the end of the key protrudes through an opening 10, in the lower portion of the brake head. The key is made of spring metal, so that when driven into place, the barbs on the opposite faces thereof engage the lower side of the openings in the ears and head, and by this springing action, the barbs securely lock the key in the brake head. When it is desired to disassemble the parts for any reason, the barbs on the key are sprung back into alignment with the face of the key, and the key may then be readily removed by prying or driving it upward. I have shown the barbs or spring tongues on the key as being rectangular in shape, but they may be of any shape so that they perform the proper function of locking the key after it has been driven in place. Also the number and location of the barbs may be varied to suit different conditions.

In the modified construction shown in Fig. 4, the key is of the same general shape, but at the point where the barbs or spring tongues are struck up from the key, the metal of the key is expanded or sprung outwardly as at 11. This expansion or widening of the key may be accomplished by the die when the spring tongue is punched or struck up from the key. The key is driven into place as described, the swelled portions of the key being contracted while passing through the openings in the brake head and shoe and then expanding after the key is seated in place, thereby securely locking the key against detachment.

Having thus described and illustrated my invention, it will be apparent that I have accomplished the objects herein set forth, and



have provided a practical and efficient key for the purposes stated.

I claim:

1. A key for brake shoes having lugs  
5 formed on opposite faces thereof.
2. A key for brake shoes having elastic gripping means formed on opposite faces thereof.
3. A key for brake shoes having a plu-  
10 rality of spring tongues struck up on opposite faces thereof.
4. A key for brake shoes having barbs punched out and partially detached there-  
from.
- 15 5. A key for brake shoes having barbs punched from and partially detached there-  
from and on opposite faces thereof.

6. A key of spring metal having a plu-  
rality of spring tongues struck up from oppo-  
site faces of the key.

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7. A key for brake shoes having compressi-  
ble portions and spring tongues adjacent  
said compressible portions.

8. A spring metal key having compressible  
portions, and oppositely-disposed spring  
25 tongues struck up from the key adjacent the  
said compressible portions.

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

DAVID H. FAIRBANKS.

Witnesses:

W. A. BUNTIN,  
SHERLEY CALDWELL.