

No. 841,695.

PATENTED JAN. 22, 1907.

VAN BUREN LAMB.
BRAKE.

APPLICATION FILED MAY 26, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

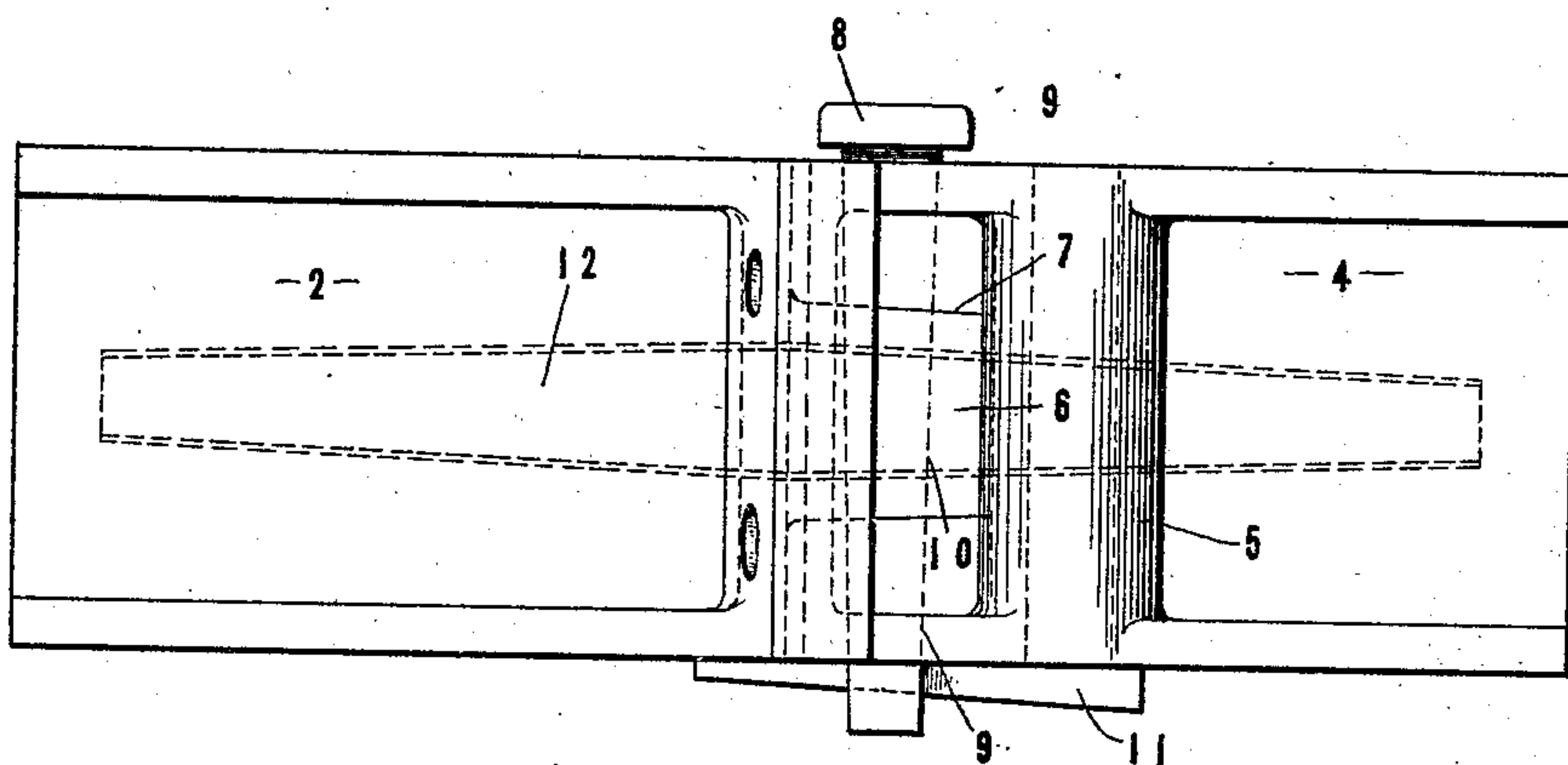
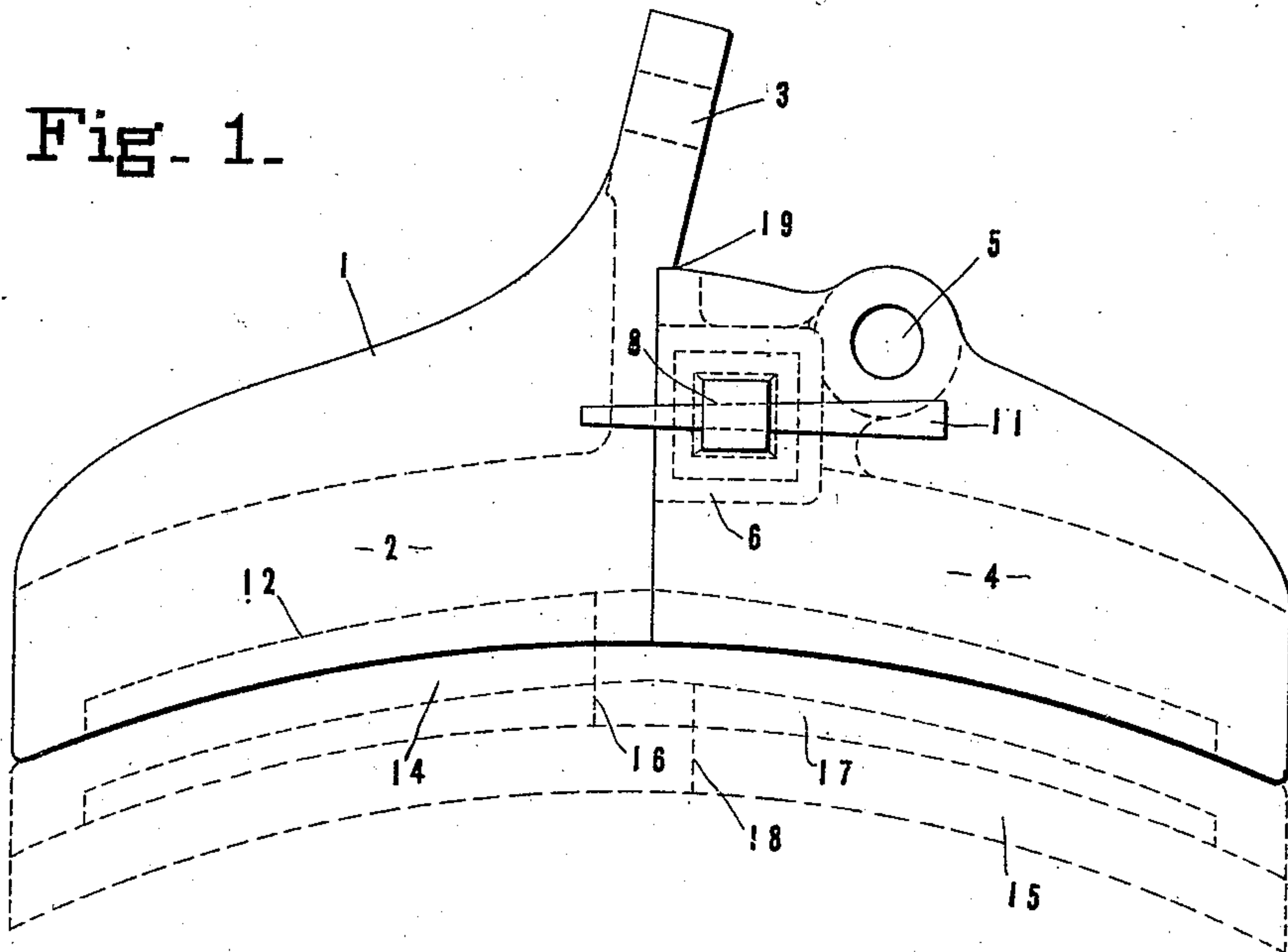


Fig. 2.

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2 SHEETS—SHEET 2.

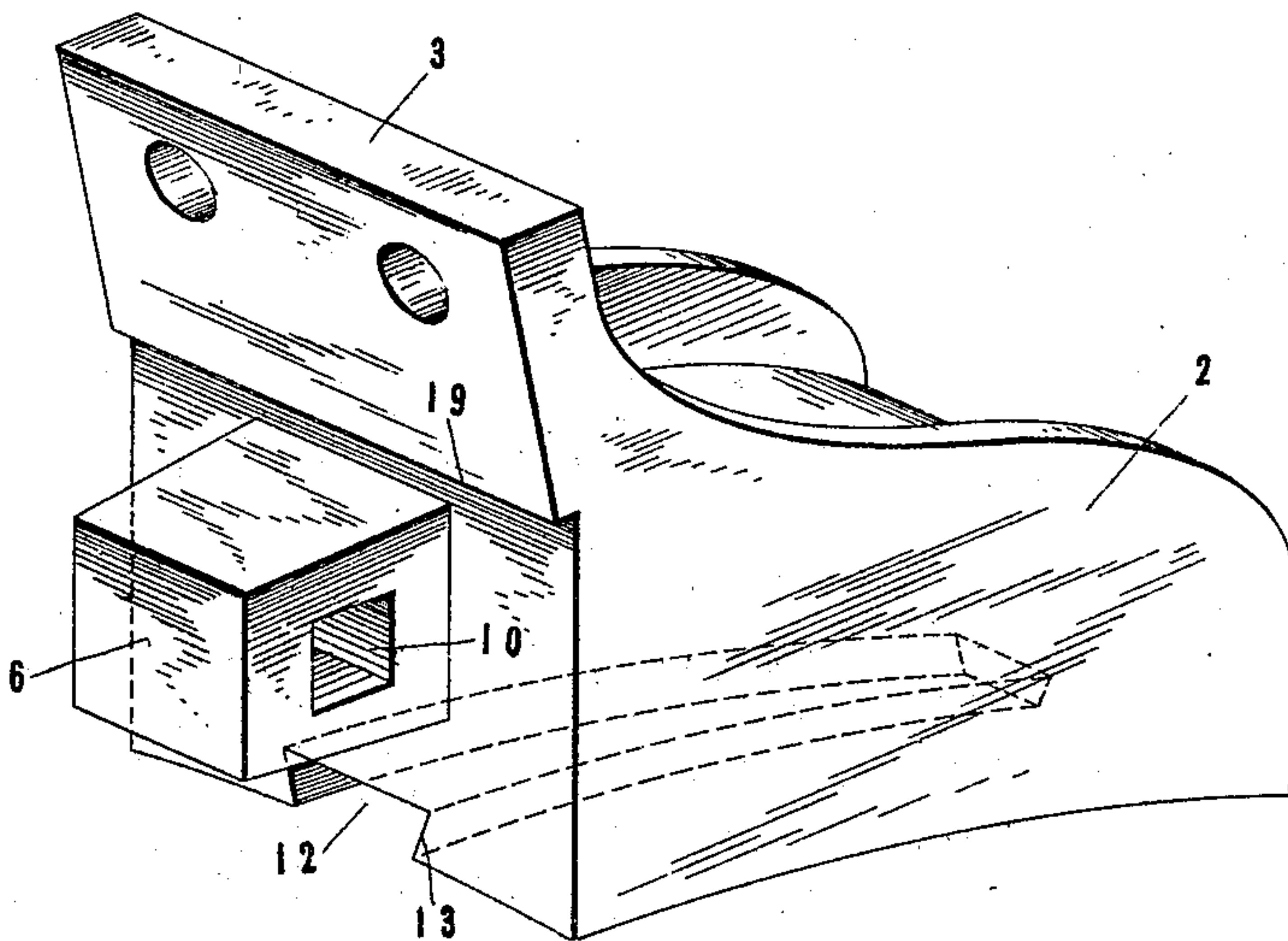


Fig. 3.

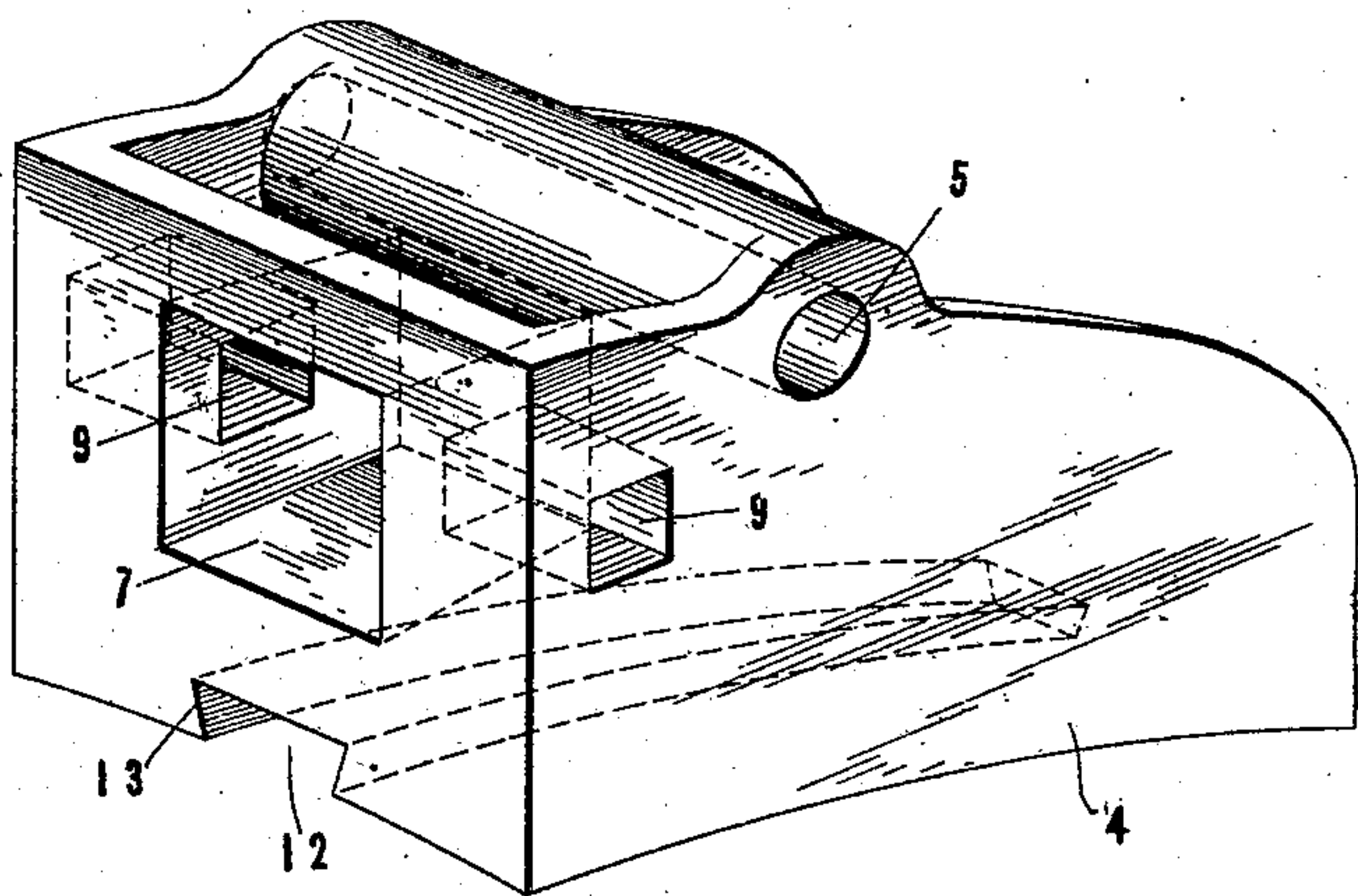


Fig. 4.

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BRAKE.

No. 841,695.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed May 26, 1906. Serial No. 318,810.

To all whom it may concern:

Be it known that I, VAN BUREN LAMB, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Brakes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to brakes.

One of the objects thereof is to provide a braking device of highly efficient and reliable action.

Another object is to provide means of the above type comprising a simple and inexpensive brake-head the members of which are readily taken apart and when assembled are securely held in position.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, wherein is shown one of the various possible embodiments of this invention, Figure 1 is a side elevation thereof. Fig. 2 is a rear elevation of parts shown in Fig. 1. Fig. 3 is a perspective view of a portion of a brake-head. Fig. 4 is a similar view of a complementary portion of a brake-head.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring now to Fig. 1 of the accompanying drawings, there is shown a two-part head 1, one portion 2 of which is adapted to be bolted to the brake-beam, as by a perforated flange 3. The remaining portion 4 of the head is provided with an eye 5, through which a hanger-link may pass, and is of a general shape complementary in character to the portion 2.

Portion 2 is provided upon its inner surface, or surface toward the center of the shoe, with a tapered projection 6, preferably rectangular in cross-section, as shown. Projection 6 fits snugly within a corresponding recess 7 formed in the portion 4 and may be held

in place by a wedge or key 8, passing transversely through the head within tapering keyways 9 and 10, formed in portion 4 and projection 6, respectively. Key 8 is held in position by a key 11 passing therethrough and resting against the lateral walls of the head.

Within the forward face of the head 1 is formed a recess or mortise 12, one portion of which lies within each of the above-described portions 2 and 4. Mortise 12 is provided with undercut side walls 13, which converge toward each end of the head, as best shown in Fig. 2 of the drawings. The depth of this mortise, moreover, decreases toward each end of the head for a purpose which will hereinafter appear. Within this mortise is fitted a shoe, which preferably comprises two members 14 and 15. Shoe member 14, which is divided transversely, as shown at 16, at a point offset with respect to the line of division of the head, is provided upon its rear surface, or surface toward the head, with a tenon so shaped as to fit the mortise 12 with the parts in assembled relation. Upon the forward surface of shoe member 14 is formed a recess or mortise 17, substantially identical in form with mortise 12 and within which fits a tenon upon the rear surface of the shoe member 15, the latter part being transversely divided, as at a point 18, offset with respect to the point 16.

The method of use of the above-described embodiment of this invention is substantially as follows: Assuming the parts to be in the assembled condition shown in Fig. 1 of the drawings, the shoe member 15 is exposed to wear until it is entirely abraded and the parts are worn down into the shoe member 14. This is brought about by reason of the fact that the point of greatest thickness of the shoes is opposite the tenon upon their rear surfaces, and thus this is the last part to wear away, and even this tenon is entirely consumed without the dropping of parts due to the undercut disposition of the walls of the mortise within which it rests. Upon the rear shoe member 14 being partially consumed the same is removed from the head by the withdrawal of the keys 11 and 8 and the longitudinal separation, by which is meant separation in a general longitudinal direction, of the two portions of the head. A new shoe is

thereupon fitted about the tenon upon the rear surface of the old shoe, the same being accomplished by slipping each of the two portions of the new shoe over each end of this tenon, and the head is again secured in position by slipping its portions over the ends of the tenon upon the rear of the new shoe and driving home the keys. The two portions of the head are thus securely held in position by reason of the interfitting projection 6 and recess 7, and, moreover, by the positioning of the rear edge of the portion 4 beneath the shoulder 19, formed upon the portion 2.

It will thus be seen that there is provided a construction in which the several objects of this invention are attained, and the above advantages, among others, are present. The several parts are not only readily separated, but are securely locked in position, and are so wedged as to obviate the chance of any wear or play thereof. This wedging action, it may be noted, is especially prominent in the function of the undercut tenons and the mortise within which they rest, as not only do the walls of the mortise converge, as above described; thus giving a lateral wedging, but as the mortise itself decreases in depth toward the ends there is also a wedging in a direction substantially radial to the wheel.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In brake construction, in combination, a brake-shoe provided with a projection upon its rear surface, a second brake-shoe interchangeable therewith coacting with said projection and provided with a similar projection upon its rear surface, and a brake-head comprising a pair of longitudinally-separable portions adapted to fit about said projection.

2. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of

projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition.

3. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition, said brake-shoes being transversely divided upon lines offset with respect one to another.

4. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition, one of said brake-shoes being transversely divided on a line offset with respect to the line of division of said brake-head.

5. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, the lateral walls of said projections being undercut, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition.

6. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, the lateral walls of said projections being undercut and converging toward the ends of the members upon which they are positioned, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition.

7. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition.

jecting portions upon its rear surface, the lateral walls of said projections being undercut, a brake-head comprising a pair of longitudinally-separable portions, each of which is adapted to fit about one of said projecting portions upon the rear surface of said second brake-shoe, and means adapted to hold the portions of said head in assembled condition, one of said brake-shoes being transversely on a line offset with respect to the line of division of said brake-head.

8. In brake construction, in combination, a transversely-divided brake-shoe, a transversely-divided brake-head the portions of which are longitudinally separable, means adapted to hold the portions of said shoe upon said head, and means adapted to hold the portions of said head in assembled condition, the lines of division of said head and of said shoe being offset with respect one to another.

9. In brake construction, in combination, a transversely-divided brake-shoe, each portion of which is provided with a projection, a transversely-divided brake-head the portions of which fit the corresponding projections and are longitudinally separable, and means adapted to hold the portions of said head in assembled condition.

10. In brake construction, in combination, a transversely-divided brake-shoe, each portion of which is provided with a projection the lateral walls of which are undercut, a transversely-divided brake-head the portions of which fit the corresponding projections and are longitudinally separable, and means adapted to hold the portions of said head in assembled condition.

11. In brake construction, in combination, a transversely-divided brake-shoe, each portion of which is provided with a projection, the lateral walls of said projections being undercut, a transversely-divided brake-head the portions of which fit the corresponding projections and are longitudinally separable, and means adapted to hold the portions of said head in assembled condition, the lines of division of said shoe and said head being offset with respect one to another.

12. In brake construction, in combination, a brake-shoe provided with a projecting portion the lateral walls of which converge toward each end of the shoe, a brake-head comprising two longitudinally-separable portions respectively adapted to fit over the ends of said projection, and means adapted to hold the portions of said head in assembled condition.

13. In brake construction, in combination, a brake-shoe provided with a projecting portion the lateral walls of which are undercut and converge toward each end of the shoe, a brake-head comprising two longitudinally-separable portions respectively adapted to fit over the ends of said projection, and

means adapted to hold the portions of said head in assembled condition.

14. In brake construction, in combination, a brake-shoe having upon its rear surface a projection the thickness of which decreases toward the ends of the shoe, a brake-head comprising two longitudinally-separable portions respectively adapted to fit over the ends of said projection, and means adapted to hold the portions of said head in assembled condition.

15. In brake construction, in combination, a brake-shoe having upon its rear surface a projection the thickness of which decreases toward the ends of the shoe and the lateral walls of which are undercut, a brake-head comprising two longitudinally-separable portions respectively adapted to fit over the ends of said projection, and means adapted to hold the portions of said head in assembled condition.

16. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, a brake-head comprising a pair of longitudinally-separable portions, each of said last-mentioned portions being adapted to fit about said projecting portions upon the rear surface of said second brake-shoe, a projection formed upon one portion of said head and fitting within the other portion of said head, and means passing through said projection and the head portion within which it fits adapted to hold said head in assembled condition.

17. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, the lateral walls of said projections being undercut, a brake-head comprising a pair of longitudinally-separable portions, each of which is adapted to fit about one of said projecting portions upon the rear surface of said second brake-shoe, a projection formed upon one portion of said head and fitting within the other portion of said head, and means passing through said projection and the head portion within which it fits adapted to hold said head in assembled condition.

18. In brake construction, in combination, a brake-shoe provided with a projecting portion adjacent each end of its rear surface, a second brake-shoe provided with similar projecting portions upon its rear surface, the lateral walls of said projections being undercut and converging toward the ends of the members upon which they are positioned, a brake-head comprising a pair of longitudinally-separable portions each of which is adapted to fit about one of said projecting portions upon the rear surface of said second

brake-shoe, a projection formed upon one portion of said head and fitting within the other portion of said head, and means passing through said projection and the head portion within which it fits adapted to hold said head in assembled condition.

19. In brake construction, in combination, a transversely-divided brake-shoe, each portion of which is provided with a projection the lateral walls of which are undercut, a transversely-divided brake-head the portions of which fit the corresponding projections and are longitudinally separable, a projection formed upon one portion of said head and fitting within the other portion of said head, and means passing through said projection and the head portion within which it fits adapted to hold said head in assembled condition.

20. In brake construction, in combination, a brake-shoe provided with a projecting portion, a brake-head adapted to fit about said projecting portion and secure said shoe thereon, said head comprising two portions, a tapering projection formed upon one portion of said head adapted to rest within a corresponding recess in the other portion thereof, a tapering key passing through said last-mentioned projection and the head portion within which it rests, and means adapted to hold said key in position.

21. In brake construction, in combination, a brake-shoe provided with a projecting portion, a brake-head adapted to fit about said projecting portion and secure said shoe thereon, said head comprising two portions, a tapering projection formed upon one portion of said head adapted to rest within a corresponding recess in the other portion

thereof, a tapering key passing through said last-mentioned projection and the head portion within which it rests, and a key passing through said tapering key and holding the same in position.

22. In brake construction, in combination, a brake-shoe provided with a projecting portion the lateral walls of which are undercut, a brake-head adapted to fit about said projecting portion and secure said shoe thereon, said head comprising two portions, a tapering projection formed upon one portion of said head adapted to rest within a corresponding recess in the other portion thereof, a tapering key passing through said last-mentioned projection and the head portion within which it rests, and means adapted to hold said key in position.

23. In brake construction, in combination, a brake-shoe provided with a projecting portion the lateral walls of which are undercut and converge toward the ends of the shoe, a brake-head adapted to fit about said projecting portion and secure said shoe thereon, said head comprising two portions, a tapering projection formed upon one portion of said head adapted to rest within a corresponding recess in the other portion thereof, a tapering key passing through said last-mentioned projection and the head portion within which it rests, and means adapted to hold said key in position.

In testimony whereof I affix my signature in the presence of two witnesses.

VAN BUREN LAMB.

Witnesses:

R. S. BLAIR,
A. G. PREVIN.