No. 720,965. PATENTED FEB. 17, 1903.

W. L. POST.

VEHICLE BRAKE.

APPLICATION FILED SEPT. 18, 1902.

NO MODEL.

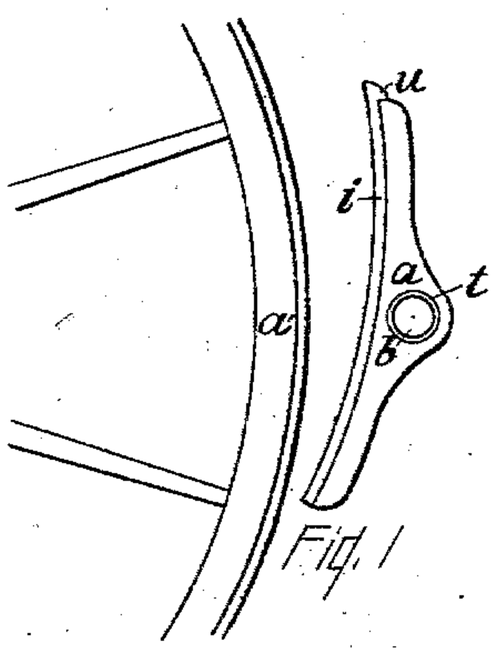

Fig. 1

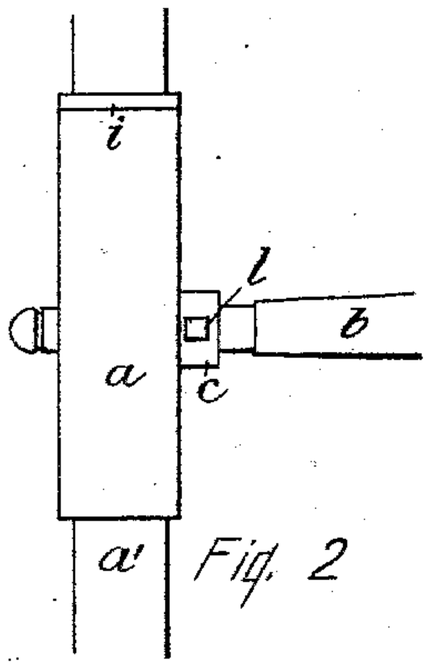

Fig. 2

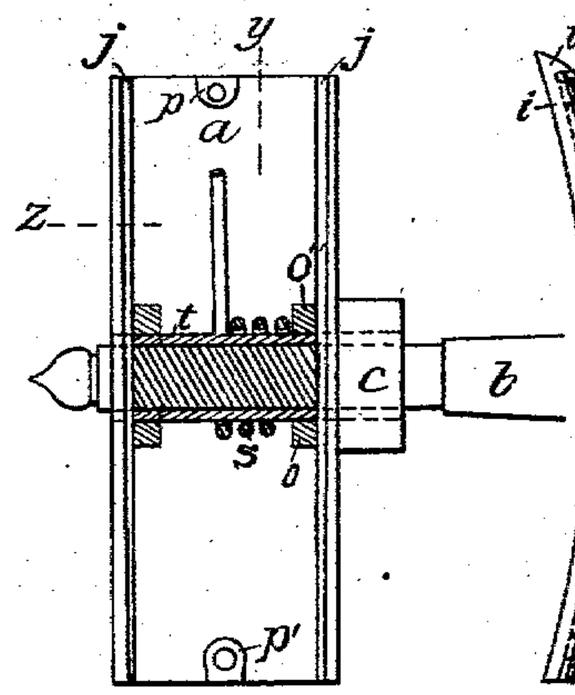

Fig. 3

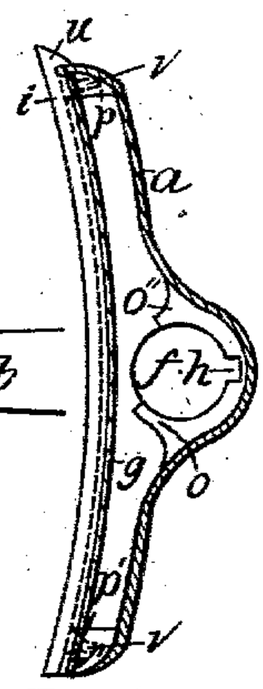

Fig. 4

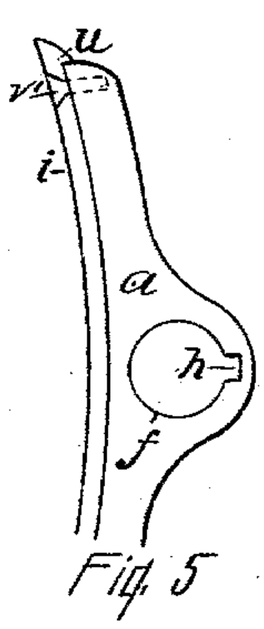

Fig. 5

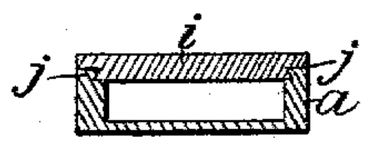

Fig. 6

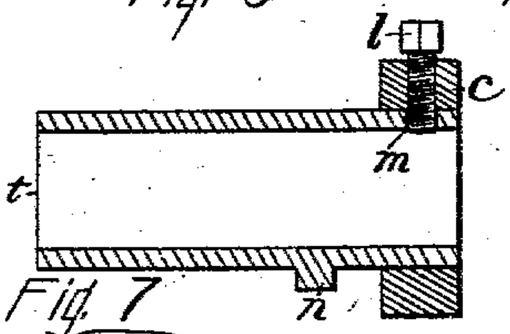

Fig. 7

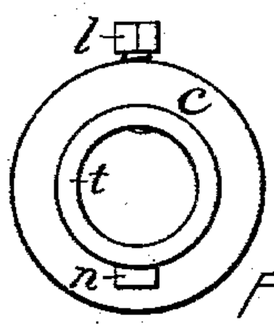

Fig. 8

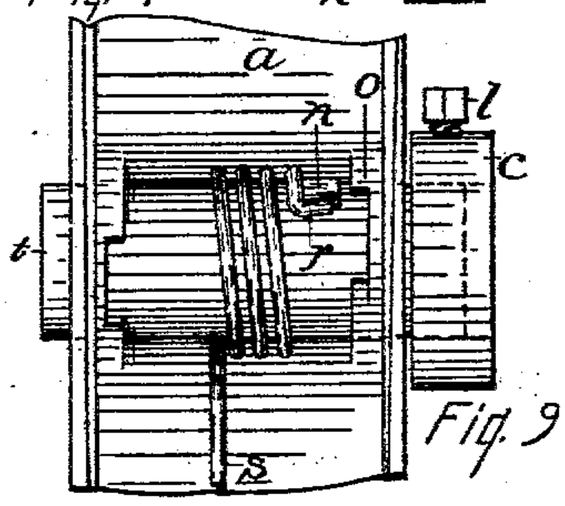

Fig. 9

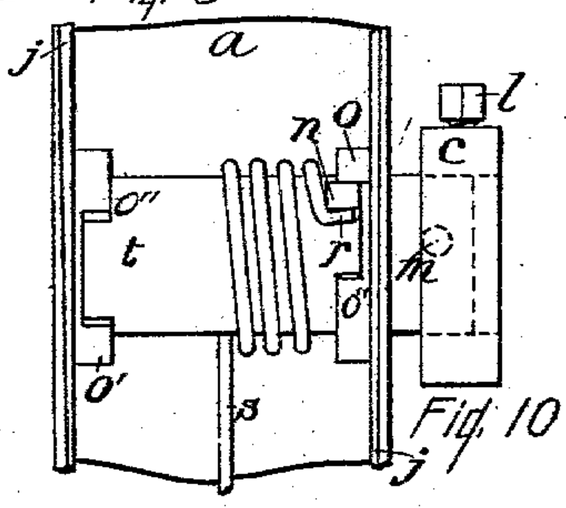

Fig. 10

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM LADUE POST, OF COLDSPRING, NEW YORK.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 720,965, dated February 17, 1903.

Application filed September 18, 1902. Serial No. 123,831. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LADUE POST, a citizen of the United States, and a resident of Coldspring, in the county of Putnam and State of New York, have invented a certain new and useful Vehicle-Brake, of which the following is a specification.

My invention relates to brakes for vehicles of every description that employ brakes upon their wheels. Its objects are to produce a brake-block that shall possess the greatest efficiency with the least number of parts, with simplicity of the parts, ease of uniting the parts, ease of adjustment to the vehicle-wheel and upon its own bearing, not requiring that its parts be separated when it is removed from its shaft for the purpose of welding the shaft, and not requiring care that the shaft should be welded in a particular position.

In the several figures of the accompanying drawings like letters refer to similar parts.

Figure 1 is an end view of the brake-block in its relation to a wheel. Fig. 2 is a rear elevation of the block and portion of a wheel. Fig. 3 is a front elevation of the block with the shoe removed and showing a portion of the devices in cross-section. Fig. 4 is a vertical elevation of the block-casing and shoe through line *y* of Fig. 1 looking toward the right hand. Fig. 5 is a section of the block-casing. Fig. 6 is a cross-section through line *z*, Fig. 3, viewed toward the top. Fig. 7 is a transverse section of a sleeve and collar forming part of the device. Fig. 8 is an end view of the sleeve and collar. Figs. 9 and 10 are enlarged views illustrating the manner of uniting the actuating parts of the block, as held in the hand for manipulating the spring.

The block *a* consists of a cast casing having its side walls united by an imperforate back, as shown particularly in Figs. 3, 4, 6, the outer edges of the side walls forming a dovetail for the holding of the shoe *i*, as shown at *j j*, Figs. 3 and 6. As further shown in Figs. 3, 9, and 10, the space for the shoe narrows from the top toward the bottom of the block, forming a wedge-like space. The shoe is further supported by a projection *u* at the top, as in Fig. 4. Lugs *p p'* are provided within the block, the lower one serving as a central support for the lower end of the shoe when the block is provided with a shoe only, as it may be; but the casing is also adapted to have a plate *g*, Fig. 4, under the shoe, in which case the plate is fastened to the lugs *p p'* by screws *v v*. Holes *f* are provided in the sides of the casing, and one or both of the holes are enlarged into slots *h*, Figs. 4 and 5. When right and left patterns are used for making the casings, this slot is added to only one of the holes; but if one pattern is used for both the right and left casings then the slot will be required for each hole. One pattern may thus be used for both casings, and the only objection to such use is that the slot would appear on the outside of the block when in use. By the use of right and left patterns the appearance of the block would be as in Fig. 1. Within the casing contiguous to the holes the shoulder *o* is cast, and in a right and left pattern a like shoulder *o'* would be upon both sides of the casing, as in Fig. 10. Opposite shoulders *o''* limit the turning movement of the block in case of breakage of the spring. A sleeve *t* (shown in cross-section in Figs. 3 and 6 and in end view in Fig. 8) is adapted to be placed in the holes *f* in the casing. The sleeve is provided with a lug *n*, and the slot *h* is to admit this lug within the casing. When the sleeve is in place, as in Fig. 3, one end of it is flush with the outer face of the casing, the lug *n* lies between the shoulders *o o''*, as in Fig. 10, and enough of the sleeve projects from the casing to receive the collar *c*, Figs. 3, 8, 9, 10. When the collar is set on the sleeve close to the casing, as in Fig. 3, the sleeve may be turned back and forth as far as the lug *n* and shoulders *o o''* will permit; but it has no lateral motion. A spring *s*, Figs. 3, 9, 10, is adapted to encircle the sleeve *t*, as in Figs. 3, 9, and 10, one end of the spring having a hook *r* to engage with the lug *n*. The other end of the spring lies against the back of the casing. When in place, as in Fig. 10, the spring holds the lug *n* against the shoulder *o*. The lug *n* and the hook *r* may be so shaped as to prevent the hook losing its hold on the lug.

The several parts are put together in the manner illustrated in Figs. 9 and 10. The sleeve *t* is passed to its place in the casing with the spring around it, as in Fig. 9. In order to catch the lug *n* on the hook of the spring, the sleeve must enter the casing far

enough for the lug *n* to avoid the shoulder *o*. The collar is then placed on the sleeve just far enough to enable it to be secured there by the set-screw *l*, as in Fig. 9. Then by taking hold of the collar the hook *r* and lug *n* are brought together, and the sleeve is turned until it can be drawn so as to engage the lug *n* and shoulder *o*. This puts a tension on the spring, brings the sleeve to its place, and leaves the collar removed from the side of the casing, as in Fig. 10. The casing is now placed on the shaft, as *b*, Fig. 3, and the collar moved close to the casing, which will prevent dislodgment of the lug *n* from the shoulder *o*. The point of the set-screw is then entered through the hole *m* in the sleeve, Fig. 10, and fastened where required on the shaft. The bearing for it on the shaft is made long enough, as in Figs. 2 and 3, for the proper lateral adjustment to the wheel. In the welding of the shaft there is nothing except the length to be observed to get the block in the proper position. The block being hung with reference to the wheel, as in Fig. 1, contact with the wheel will bring the block in such relation to the internal spring that it will be kept perfectly adjusted to the wheel. It may be removed from its shaft at any time and be replaced without any disturbance of its component parts. It can, however, be easily taken apart and put together, no skill being required to do either. The lower end of the casing has its backing terminate a little short of the bottom, as in Fig. 4, which leaves an outlet for drainage.

It will be observed that this is practically a self-contained brake-block, in that it is in no wise dependent upon the brake-shaft, except as a means of support.

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

1. The combination in a brake-block of a laterally-adjustable sleeve, a lug on said sleeve and a collar upon the end of the sleeve with a set-screw in said collar adapted to hold both rigidly to a shaft, a casing on said sleeve provided with a shoe, a spring within the casing and around the said sleeve engaging at one end with the lug on the sleeve and with the casing at the other end, and stops within said casing to limit the movements of the casing substantially as set forth.

2. In a brake-block as described in which the casing is journaled on a sleeve, the casing provided with holes for bearings upon the sleeve, the holes having notches for the admission of a lug on the sleeve, the side flanges dovetailed in width and length to receive and sustain a shoe, stops to limit the movement of the casing integral therewith, the backing of the casing terminating near the bottom, substantially as and for the purposes set forth.

3. In a brake-block the combination substantially as herein shown of a straight brake-shaft, a sleeve laterally adjustable on said shaft, a collar with set-screws on the sleeve, a hole in the sleeve for the passage through it of the screw in the collar, a lug on the sleeve, a casing journaled on said sleeve, notches in the journaled bearings of the casing to admit the lug on the sleeve, the sides of the casing dovetailed to receive a shoe, a central support for the shoe at the lower end of the casing, a spring within the casing encircling the sleeve engaging with the casing and the lug on the sleeve, and stops within the casing to limit its movement.

4. In a brake-block the combination as set forth of a straight brake-shaft, a sleeve laterally adjustable on said shaft, a collar with set-screw on the sleeve, a hole in the sleeve to admit said set-screw, a lug on the sleeve, a casing journaled on said sleeve, notches in the journaled bearings of the casing to admit the lug on the sleeve, the sides of the casing dovetailed to receive a shoe, a plate under the shoe, a spring within the casing engaging with the casing and the lug on the sleeve, and stops within the casing to limit its movements.

Signed at Coldspring, in the county of Putnam and State of New York, this 11th day of September, A. D. 1902.

WILLIAM LADUE POST.

Witnesses:
W. C. SOUTHARD,
CHARLES E. DALZELL.