





# UNITED STATES PATENT OFFICE.

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## VEHICLE BRAKE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 780,227, dated January 17, 1905.

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*To all whom it may concern:*

Be it known that I, MORGAN POTTER, a citizen of the United States, and a resident of Fishkill-on-the-Hudson, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Vehicle Brake-Blocks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact specification, sufficient to enable others to practice and use my invention.

My present invention relates chiefly to that variety of brake-blocks which are employed in connection with the wheels of wagons, carriages, and similar vehicles and which are sustained upon their shafts in such manner as to avoid contact with the wheel except at such times as they are purposely brought into position for action by shifting the position of their shafts. They are usually thus maintained on their shafts by springs, which tend to keep the tops of the blocks out of the way of the wheel-tires when the blocks are not intended to be applied against the wheels; but they might be otherwise maintained for the like purpose—that is, to prevent unnecessary wear.

The principal objects of my invention are to provide or produce a cheap and efficient brake-block of few and simple parts which may be easily and quickly removed from its shaft without disturbing the latter and in which the spring may be easily and properly located and the block applied upon its shaft by any person without difficulty, without danger of getting the spring misplaced, and without disturbing the bearing-face of the block. To accomplish these objects and to secure other and further advantages in the matters of construction, operation, and use, my improvements involve certain new and useful arrangements or combinations of parts and peculiarities of construction, as will be herein first fully described and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a rear elevation of my improved brake-block in its most approved form, the same being shown as

mounted on its shaft, only a portion of the latter being shown. Fig. 2 is a vertical section and partial elevation on a plane through line *xx* of Fig. 1. Fig. 3 is a side elevation, the shaft being shown in section. Fig. 4 is a view in elevation corresponding with Fig. 1, but showing the parts in position which they assume before they are finally located.

In all the figures like letters of reference wherever they occur indicate corresponding parts.

A is the block, which in the form shown in the drawings is of a single piece and may be made of cast metal; but this block may sustain a separate bearing plate or shoe for contacting with the vehicle-wheel, if so desired, and this shoe may be of any desired form. My preferred construction contemplates that the spring shall be inserted and adjusted at the rear of the block and not through the face thereof, although the face of the block need not necessarily be imperforate, as indicated in the drawings.

B is the brake-block shaft. This may be operated by any preferred means after the usual manner of operating these shafts and not necessary to be shown herein.

C is a coiled spring mounted on a reduced portion of the shaft and calculated to normally hold the top of the brake-block tilted away from its position when in contact with the tire of a wheel.

On the back of the block is a housing or projecting part *a*, through the side walls of which the perforations are made to receive the turned portions of the shaft and to constitute bearings therefor. The shaft is accurately turned, and it makes accurate and close-fitting bearings in the perforations provided for it, so that it must be entered in a straight line, which makes the location and adjustment of the spring difficult unless the latter is properly exposed to view and easily placed in proper position while the shaft remains undisturbed.

One end of the coiled spring enters an inclined recess in the larger turned portion of the shaft, as shown in Fig. 4, and the other end bears on the under side of the portion *a*.



The effect of this arrangement is that when the spring is finally located it will bear the top of the block back and the spring will not become displaced. The free end of the spring  
 5 might of course bear upon the back of the block below the shaft and bear the top of the block back with equal effect; but I prefer the arrangement shown, for the reason that when the block is worn through, as frequently oc-  
 10 curs, the spring will not be worn away and the device need not be replaced until it is quite worn to the limit of its usefulness.

At *b* and *c* are two abutments on the side of the block, between which a suitable screw *d*  
 15 or equivalent stop applied on the shaft is located. The abutments limit the extent of turning of the block on the shaft and keep the spring always under tension, as is now well understood. The lower part of the housing  
 20 *a* is cut away, as to the line *e*, so as to expose about one-half of the coiled spring and the slot in the turned portion of the shaft. The spring is held in position and it and the block located on the shaft, so that the end of the  
 25 spring will enter the slot cut for it, and the parts will then assume about the position indicated in Fig. 4. After this it is only necessary to turn the block against the action of the spring until the screw or stop *d* can enter  
 30 between the abutments and then crowd the block to its place, as in Fig. 1. An ordinary nut on the end of the shaft holds the block in its proper place.

From a consideration of the foregoing it  
 35 will be plain that the locating of the block and its spring may be easily accomplished by any person of ordinary skill, so that the block may be replaced or renewed without the necessity of dismounting the shaft or calling for  
 40 the aid of a skilled mechanic.

It has heretofore been regarded as necessary to cover the entire spring; but I have found that by having only its lower portion exposed that much of the covering may be

omitted without detriment, because the dirt 45 which enters under the housing will naturally fall away and will not interfere with the working of the spring or the block.

Being constructed and arranged substantially in accordance with the foregoing ex- 50 planations, the improved device will be found to answer all the purposes or objects of the invention herein alluded to.

Having now fully described my invention, what I claim as new herein, and desire to se- 55 cure by Letters Patent, is—

1. In a brake-block of the character herein set forth, a projection on the back for accom- modating the end of the shaft and the spring thereon, the shaft being slotted to receive 60 one end of the spring and the projection being cut away at its lower part to expose a portion of the spring and the slot in the shaft, substantially as and for the purposes set forth.

2. In a brake-block of the character herein 65 set forth, the combination of the block provided with a housing at its rear and cut away at its lower part as explained, the shaft slotted to receive one end of the spring, and the spring bearing on the under side of the hous- 70 ing, the spring and slot being exposed, substantially as shown and described.

3. In a brake-block of the character herein set forth, the combination with the slotted shaft provided with the stop, of the block 75 having the abutments on the side and the housing on the back cut away as explained, the coiled spring located on the shaft and engaged in the slot therein, the spring and the slot in the shaft being exposed, substantially 80 as and for the purposes set forth.

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

MORGAN POTTER.

Witnesses:

M. E. CURTISS,  
 I. B. CAMMACK.