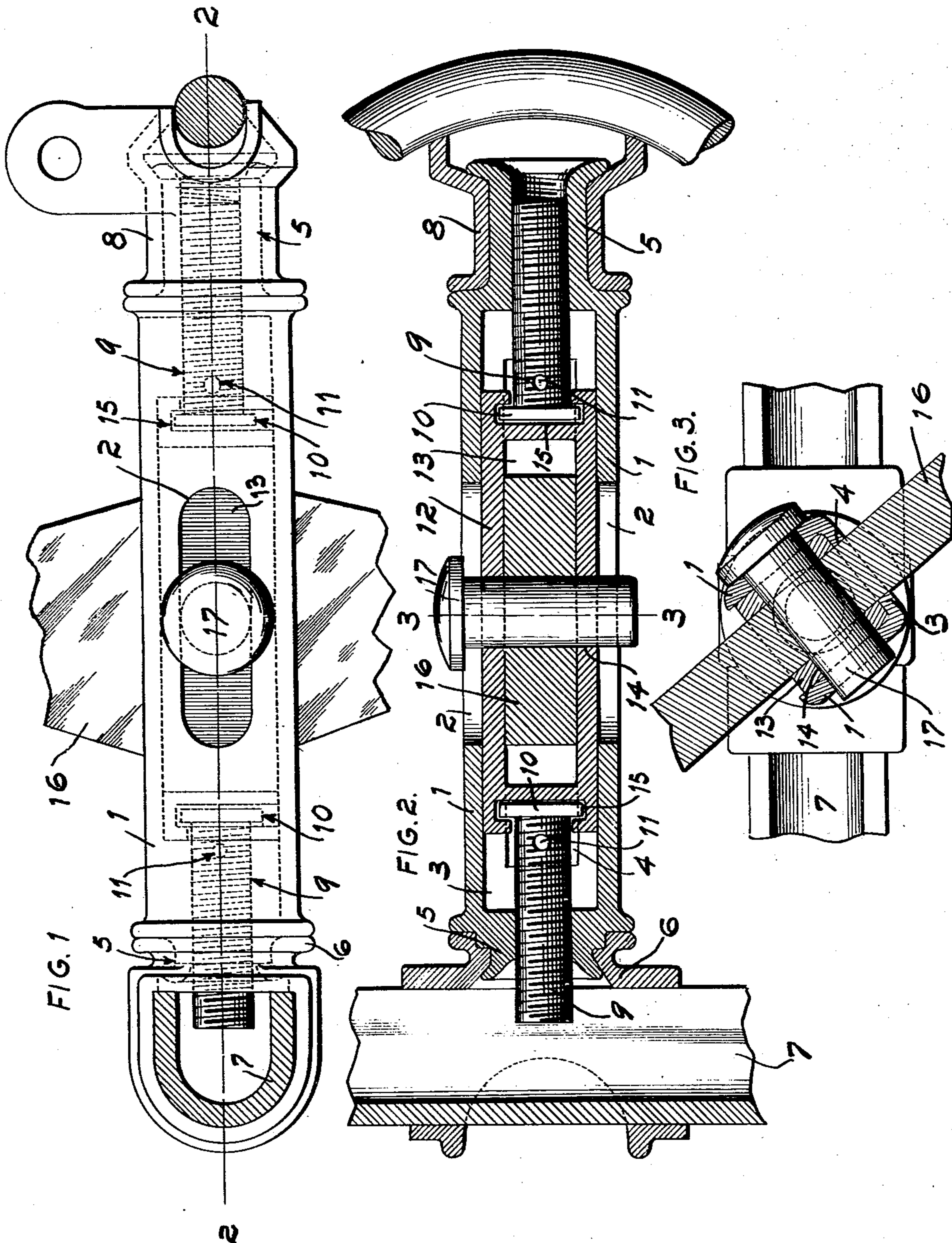


C. H. WILLIAMS, JR.
BRAKE LEVER STRUT.
APPLICATION FILED JULY 15, 1909.

951,165.

Patented Mar. 8, 1910.



WITNESSES

J. H. Janus.

M. P. Smith

INVENTOR

CHARLES H. WILLIAMS JR.

BY *F. R. Cornwall* ATT'Y.

UNITED STATES PATENT OFFICE.

CHARLES H. WILLIAMS, JR., OF CHICAGO, ILLINOIS, ASSIGNOR TO CHICAGO RAILWAY EQUIPMENT COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BRAKE-LEVER STRUT.

951,165.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed July 15, 1909. Serial No. 507,763.

To all whom it may concern:

Be it known that I, CHARLES H. WILLIAMS, Jr., a citizen of the United States, residing at Chicago, Illinois, have invented a certain new and useful Improvement in Brake-Lever Struts, 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, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a brake lever strut of my improved construction showing the compression and tension members of the brake beam in section. Fig. 2 is a horizontal section taken on the line 2—2, of Fig. 1. Fig. 3 is a cross section taken on the line 3—3, of Fig. 2.

My invention relates to an improved brake lever strut particularly designed for use on either right or left hand beams, which strut is provided with an adjustable member which receives the brake lever pivot pin.

The object of my invention is to provide a simple inexpensive strut, the main body portion of which may be rocked from one side to the other so as to accommodate brake levers of right or left hand beams, said strut being provided with a block which is adjustable longitudinally in the body of said strut, on which member the brake lever is fulcrumed. The adjustable pivot pin block may, with slight modifications, be advantageously used in connection with struts on so-called solid beams or any struts which are not reversible.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

As shown in the drawings, the main body portion of my improved strut comprises a pair of parallel side walls 1 longitudinally slotted as designated by 2 and uniting the lower portions of said walls is a bottom plate 3 which is provided with a longitudinally-disposed slot 4. Formed integral with the ends of the body of the strut are tubular studs 5 which are interiorly screw-threaded, one of which studs is swiveled in a sleeve 6 which embraces the central portion of the

compression member 7 of the brake beam, the opposite stud being swiveled in a block 8 which engages the central portion of the tension member of the beam. Threaded bolts 9 are screw-seated in the studs 5, said bolts being provided with disk heads 10 which occupy positions in the ends of the body of the strut, and formed through the bolts, adjacent their heads are diametrically arranged apertures 11 which are adapted to receive a suitable tool used for screwing the bolts backward or forward in the tubular studs 5.

12 designates the adjustable pivot pin block through the center of which is formed an opening 13 and formed through the walls at the sides of said opening are apertures 14. Formed in the ends of the block 12 are recesses or pockets 15 in which the heads 10 of the bolts 9 are seated when the parts of the strut are assembled. The block 12 occupies a position between the walls 1 and rests upon the bottom plate 3 and when so positioned the slot or opening 13 in said block coincides with the slot 4 in the bottom plate 3. The brake lever 16 passes through the opening 13 in the block 12 and said lever is pivoted or fulcrumed upon a pin 17 which passes through the aperture 14 formed in the sides of the block and through a corresponding opening formed in said lever.

By swiveling the tubular studs 5 in the sleeve 6 and block 8, the main body portion of the strut carrying the pivot pin block can readily be shifted from one position to another, thus accommodating the brake lever at any angle, and such construction transforms the beam on which the strut is used from a right hand to a left hand beam or vice-versa.

The pivot pin block 12, in which the brake lever is fulcrumed, is adjusted longitudinally in the strut by screwing the bolts 9 backward or forward through the tubular studs 5, which movement is accomplished by engaging a suitable tool in the apertures 11. This construction provides for the adjustment of the fulcrumed point of the brake lever to suit different conditions, and the adjustable bolts 9 seated in the tubular studs 5 readily maintain the pivot pin block in position after adjustment.

From the above it will be seen that the housing 2 serves as the strut proper for the trussed structure, but does not transmit any of the strains imparted through the brake lever. In view of the fact that the adjustable mounting for the brake lever is under no strain incident to the camber of the beam, it is possible to very easily rotate the screws to adjust the lever mounting when the lever and pin are removed.

A strut of my improved construction is comparatively simple, comprises a minimum number of parts, is adapted for use on either composite or solid beams and is easily and quickly adjusted.

It will be readily understood that minor changes can be made in the construction and form of my improved strut without departing from the spirit of my invention.

Having thus described my invention, what I claim is:

1. The combination with a brake beam strut, of a movable pivot pin block therein, and longitudinal adjustable means seated in the ends of the strut for shifting the position of said block.

2. The combination with a reversible brake beam strut, of a brake lever pivot pin block arranged in the strut and longitudinal adjustable means located in the ends of said strut for shifting the position of said block.

3. The combination with a brake lever strut, of a movable pivot pin block arranged therein, and longitudinal adjustable means connecting the ends of said block with the ends of the strut.

4. The combination with a brake lever strut, of a movable pivot pin block arranged therein, adjustable means connecting the ends of said block with the ends of the strut, and swiveled members on the ends of the strut for engaging the compression and tension members of the brake beam.

5. The combination with a brake lever strut, of a movable pivot pin block within the strut, and bolts screw-seated in the ends of the strut and engaging the ends of said block.

6. The combination with a brake lever strut, of a movable pivot pin block within the strut, bolts screw-seated in the ends of the strut and engaging the ends of said block, and members swiveled on the ends of the strut for engaging the compression and tension members of the brake beam.

7. A brake lever strut comprising a slotted body, members swiveled on the ends thereof for engaging the compression and tension members of a brake beam, a pivot pin carrying block loosely arranged in the slotted body, and adjustable means mounted in the ends of said slotted body and engaging the ends of the block.

8. The combination with a brake beam strut

having a reversible body portion, of a movable pivot pin block arranged in the body portion, and means seated in the ends of the body for shifting the position of the block.

9. In a brake lever strut, a slotted body, a movable pivot pin block therein, and longitudinal adjustable means seated in the ends of the body for shifting the position of the block.

10. In a brake beam strut, a slotted body, a movable pivot pin block therein and longitudinal adjustable means connecting the ends of the slotted body with the ends of the block.

11. In a brake beam strut, a slotted body, a movable pivot pin block therein, adjustable means connecting the ends of the slotted body with the ends of the block, and swiveled members on the ends of the strut for engaging the compression and tension members of the brake beam.

12. A strut for a brake beam, comprising a slotted body, reversibly positioned between the compression and tension members of a brake beam, a pivot pin block adjustably arranged in the slotted body and means uniting the ends of the block and the slotted body for holding said block after adjustment.

13. The combination with a reversible strut for brake beams, of a movable pivot pin block within the strut, there being recesses formed in the ends of said block and adjusting devices connecting the ends of the strut with the ends of the block, the inner ends of which adjusting devices are seated in the recesses in the block.

14. The combination with a reversible strut for brake beams, of a movable pivot pin block within the strut, there being recesses formed in the ends of said block, adjusting devices connecting the ends of the strut with the ends of the block, the inner ends of which adjusting devices are seated in the recesses, in the block, and swiveled members on the ends of the strut for engaging the compression and tension members of the brake beam.

15. The combination with a reversible strut for brake beams, of a movable pivot pin block within the strut, and screw bolts seated in the ends of the strut, the inner ends of which are loosely seated in the ends of the block.

16. A strut for brake beams having threaded ends, in combination with a lever mounting engaging said threaded ends and which lever mounting transmits all of the lever strains.

17. A hollow strut for brake beams, combined with an adjustable lever mounting, and means for locking said mounting in its adjusted positions within the strut, said mounting engaging both ends of said strut, and transmitting all of the lever strains.

18. A lever mounting for brake beams having threaded projections at its ends, in combination with a hollow strut with which it coöperates.

5 19. A lever mounting for brake beams having threaded parts swiveled in its ends.
In testimony whereof I hereunto affix my

signature in the presence of two witnesses,
this 2nd day of July 1909.

CHARLES H. WILLIAMS, JR.

Witnesses:

EDWARD T. WALKER,
JOSEPH W. WEINLAND.