June 30, 1925. 1,544,007

A. S. HUGHES

TOILET PARTITION

Original Filed Aug. 11, 1921 2 Sheets-Sheet 1

Fig. 1.

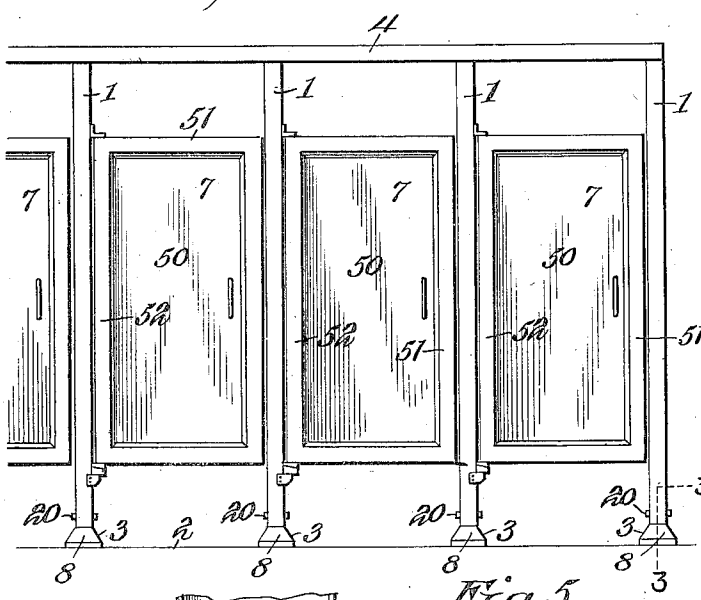


Fig. 2.

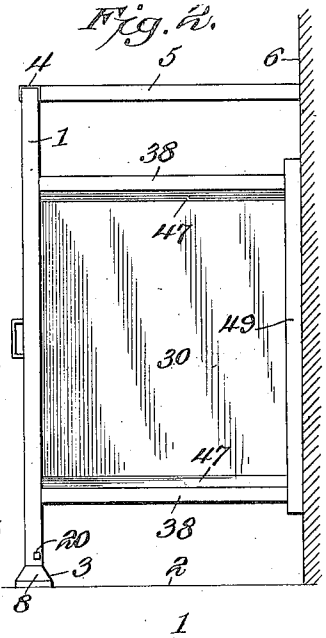


Fig. 3.

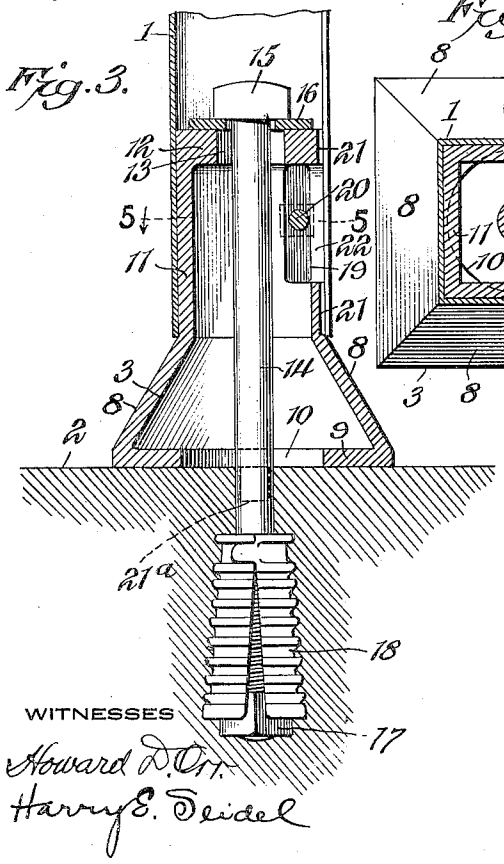


Fig. 5.

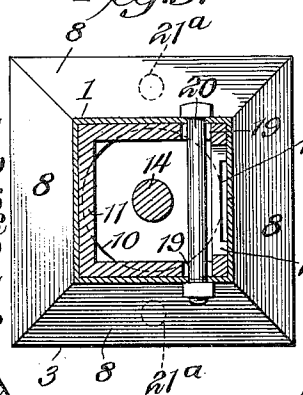
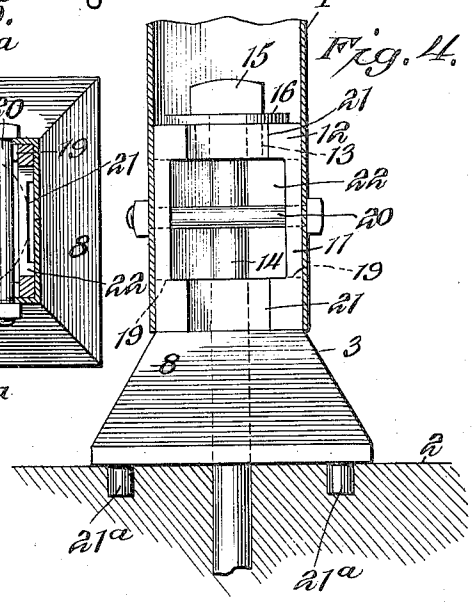


Fig. 4.



WITNESSES

Howard D. Orr

Harry E. Seidel

Arthur S. Hughes, INVENTOR,

BY E. G. Siggers

ATTORNEY

June 30, 1925. 1,544,007

A. S. HUGHES

TOILET PARTITION

Original Filed Aug. 11, 1921 2 Sheets-Sheet 2

Fig. 6.

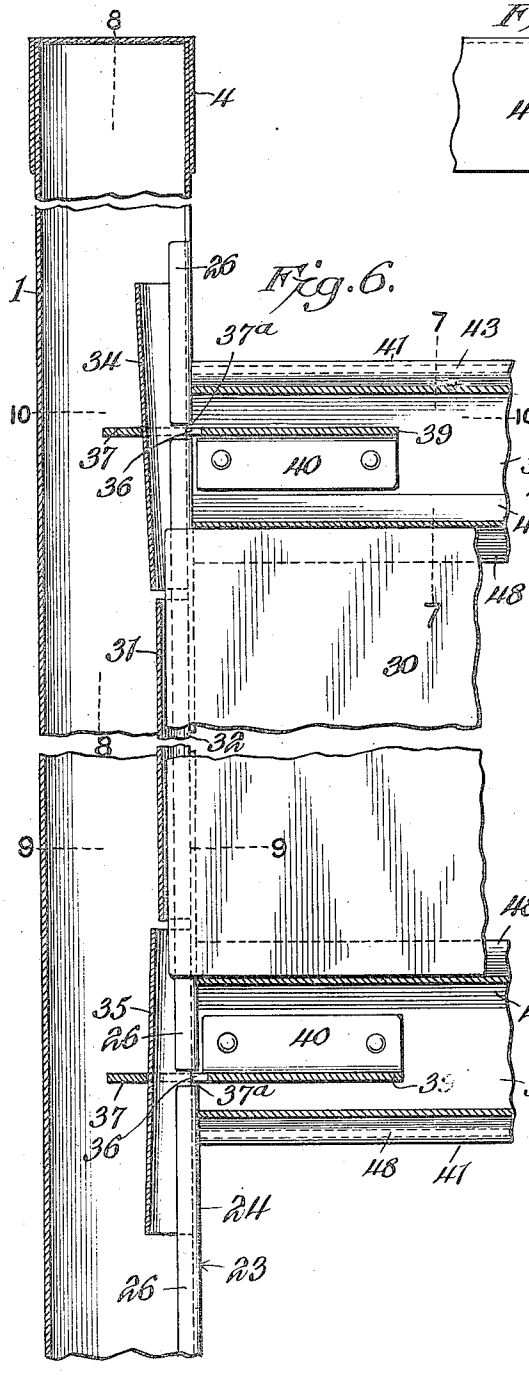


Fig. 7.

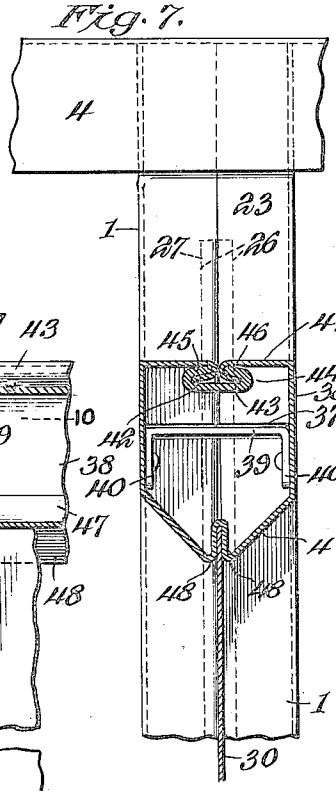


Fig. 8.

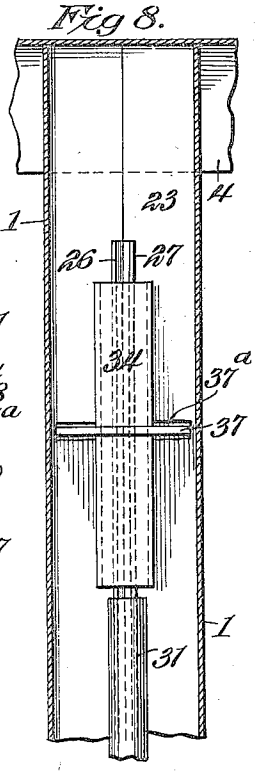


Fig. 9.

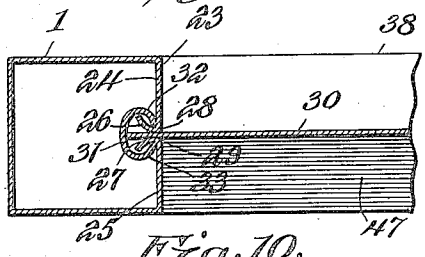
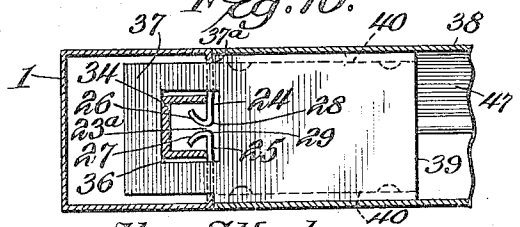


Fig. 10.



WITNESSES

Howard D. Orr

Harry E. Seidel

Arthur S. Hughes, INVENTOR,

BY E. G. Siggers

ATTORNEY

Patented June 30, 1925. 1,544,007

UNITED STATES PATENT OFFICE.

ARTHUR SHERIDAN HUGHES, OF MANSFIELD, OHIO.

TOILET PARTITION.

Application filed August 11, 1921, Serial No. 491,459. Renewed November 10, 1924.

To all whom it may concern:

Be it known that I, ARTHUR S. HUGHES, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Toilet Partition, of which the following is a specification.

This invention relates to partitions, and is more particularly directed to toilet partitions constructed of sheet metal. The general objects of the invention are to provide a readily manufactured, easily assembled and sanitary construction of this character.

The improvements relate first to an improved base shoe for the front posts or columns of toilet partitions, said shoe being adjustable to varying elevations of floor grade; second, an improved locking connection between the front post or column and the panel and rails or stiles; and third, a channel-shaped head rail for connecting the upper ends of the front posts or columns.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing in the drawing, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:—

Fig. 1 is a front view of the toilet containing the features of this invention.

Fig. 2 is an end view of the same.

Fig. 3 is a vertical section of a base shoe and column taken along the line 3—3 of Fig. 1.

Fig. 4 is an elevation of the base shoe with the lower end of the post or column in section.

Fig. 5 is a transverse section through the post and shoe taken along line 5—5 of Fig. 3.

Fig. 6 is a fragmentary view in section showing the construction of the connections between the rails, the panel and the post or column.

Fig. 7 is a vertical section taken along the line 7—7 of Fig. 6.

Fig. 8 is a vertical section taken along the line 8—8 of Fig. 6.

Fig. 9 is a transverse section taken along the line 9—9 of Fig. 6.

Fig. 10 is another transverse section taken along the line 10—10 of Fig. 6.

In the toilet construction of the present invention, vertically spaced partitions are raised from the floor and extend forwardly from a wall or other support, and are mounted at their forward ends in vertical posts or columns, as shown in Figs. 1 and 2. The upper ends of the posts or columns are connected by a channel-shaped head rail.

Referring to the drawing, 1 designates hollow posts or columns, which are made of sheet metal preferably rectangular in cross section, secured to the concrete floor 2 by means of the hollow base shoes 3. A channel-shaped head rail 4 embraces the upper free ends of the posts or columns 1, and runs longitudinally of the toilet. Channel-shaped cross rails 5 are placed transversely of the toilet, and are connected at their outer ends to the head rail 4, where they join the posts 1, and at their inner ends to the wall 6 of the room. The rails are connected to the posts by means of spot welding, or by any well known means for securing them in place. Between the posts 1 are doors 7 hingedly mounted in any approved manner.

As shown in Figs. 3 to 5, inclusive, the lower end of the post 1 telescopes the upper portion of the shoe 3. The shoe 3 has a flared base 8 which is hollow, the bottom 9 of which has an opening 10. Rising from and integrally formed with the base 8 is a shank 11, which is likewise hollow and of a shape to fit snugly within the lower portion of the post. The top wall 12 of the shank is provided with a perforation 13, through which an expansion bolt 14 is inserted. The bolt is provided with a head 15 which may rest upon a washer 16 located upon the top 12 of the shank 11, the bolt passing through the perforations 13 and 10, and being securely held in the concrete floor 2 by means of a nut 17 engaging the screw-threaded lower end of the bolt 14. The nut is prevented from turning by any convenient means, for example an expansion shield 18 which is firmly embedded in the concrete and provides anchoring means for the shoe 3.

The opposite sides of the shank 11 are provided with vertical slots 19, and the post is provided with alined openings in its op-

posite sides through which is inserted a bolt 20 to secure the lower end of the post 1 onto the shank 11. The vertical slots 19 in the shank 11 are provided for the purpose of permitting vertical adjustment of the post whenever necessary, due to variations in the level of the floor. A vertical groove 21 is formed in another side of the shoe 3, and is adapted to receive the inturned flanges of the post, in order that the lower end of the post will neatly fit upon the shank 11 of the shoe, when the flanges (which will be described later) extend throughout the entire length of the post.

In order to prevent turning or axial displacement of the shoe 3, lugs 21ª (Fig. 4) diametrically disposed upon the underneath side of the base 8, are adapted to be inserted in holes formed or drilled in the concrete floor 2.

It will be seen that the opening 10 in the base 8 through which the expansion bolt 14 is inserted, is much larger than the opening 13 in the top of the shank 11. The object of this construction is to permit an adjustment of the shoe 3 without boring a new hole in the floor for the bolt 14 and without removing the shoe 3. An opening 22 is formed in the side of the shank 11 to permit inspection of the interior of the shoe without removing the shoe from its anchored position on the floor. In practice, the shoes are first mounted in place and the posts afterwards connected thereto.

Figs. 6 to 10 illustrate the construction of the partitions proper and the ready manner in which the same may be assembled and connected, an important feature of my invention. The post 1 is provided with three plain sides, and a fourth side 23 comprising two inturned walls 24 and 25, which closely approach at the center and form a vertical slot 23ª (Fig. 10). The walls 24 and 25 are provided with inturned flanges 26 and 27, bent at an acute angle to the walls 24 and 25, the apices or angles 28, 29 engaging the face of a panel 30 (Fig. 9) at a point removed from the edge thereof.

A spring clip 31 (Figs. 6 and 9) embraces the flanges 26 and 27, and bears against the extended edge of the panel, and is provided with jaws 32, 33, the edges of the jaws engaging in the angle between the flanges 26 and 27, and the walls 24 and 25, respectively. As seen in Fig. 6, the spring clip 31 embraces only the intermediate longitudinal portion of the flanges 26 and 27 of the post 1, while other means to be described embrace the outer ends of the flanges.

Such means may comprise wedges 34, 35 which are formed of sheet metal in channel form and have a base provided with two outstanding sides whose outer free edges are inclined at an angle to the base. The wedges 34 and 35 are held in place by being forcibly inserted through openings 36 in channel plates 37, which project into posts 1 through spaced slots 37ª. The plates 37 have at their ends 39 angular flanges 40 riveted to the opposite sides of the hollow rails or stiles 38 upon the interior thereof. The plates 37 in cooperation with the wedges 34 and 35 not only provide a locking means for the rails 38 to the post 1, but they also brace the ends of the rails 38.

Each rail or stile 38 is made of sheet metal and is provided with a base portion 41 which is split centrally and longitudinally thereof. The inner edges of the split portion of the base substantially meet, and are provided with inturned flanges 42 and 43, which are engaged by a clip 44, as shown in Fig. 7. The clip 44 is firmly clenched upon the flanges 42 and 43 of the base portion 41 so that the clip jaws 45 and 46 lie in close engagement with the sides of the flanges 42 and 43, respectively. This construction may be spot welded.

Moldings 47 form one face of the rails or stiles 38 and are angular in form, and provided with reentrant grooves forming jaws 48, between which are inserted the horizontal edges of the panel 30.

The inner ends of the rails or stiles 38 and the panel 30 are secured to a stile 49 (Fig. 2) in any approved manner; for example, the construction shown in my Patent No. 1,311,229, may be adopted.

The doors 7, which comprise panels 50, and stiles 51, 52 may be assembled in the same manner as the different elements forming the partitions, or the construction shown in my Patent No. 1,373,191 may be adopted.

In assembling the horizontal upper and lower edges of the panel 30 are inserted in the respective jaws 48 of the rails or stiles 38, and a vertical side edge of the panel is inserted through the vertical slots 23ª of the post 1, formed between the walls 24 and 25, the plates 37 being at the same time passed through the horizontal spaced openings 37ª in the post 1.

The clip 31 is then driven over the flanges 26 and 27, so that the edges of the jaws of the clip will engage the angle connection between the flanges 26, 27 and the walls 24, 25, respectively, of the wall 23, thereby locking the apices of the angular portion against the vertical faces of the panel 30. Thus it will be seen that the jaws of the clip 31 firmly lock the panel 30 in place.

The wedge members 34 and 35 are driven from opposite ends of the post 1 through the openings 36 of the plates 37, when the outer surfaces of the wedges will engage the walls of the openings 36 in the plates, and the inclined edges of the sides of the channel-shaped wedges will ride against the inner surfaces of the walls 24 and 25, thereby drawing the ends of the rails or stiles 38 up

close to the side 23 of the post 1 and locking the same in position on the post.

Where the lower end of the post joins with the base shoe, the flanges 26 and 27 of the post may be flattened against the inner side of the wall 23, and when the lower end of the post 1 is placed upon the shank 11 of the shoe 3, these flattened flanges may then be received within the grooved portion 21 of the shank 11 of the shoe.

In connecting the post to the shoe, the lower end of the post 1 is placed in position on the shank 11 of the shoe and adjusted to the proper vertical position. The bolt 20 is inserted through the openings in the post and the slot in the shoe, and then a nut is screwed up tight against the post. By having the shank of the shoe extend up inside the post or column, I have entirely eliminated the possibility of the connection collecting or holding any dirt or moisture, a point of superiority over many of the devices now on the market.

What is claimed is:—

1. In a partition, a base shoe for the posts or columns of the partition, comprising a flared base, a shank rising from the base and provided with an opening in the top, the base having a larger opening, a securing bolt inserted through said openings in the shoe, and means for holding one end of the bolt to the shank, the other end being fastened to the floor.

2. In a partition, a base shoe for securing the posts or columns of the partition to the floor, comprising a flared base, a shank integrally formed with the base and rising therefrom and provided with an opening in the top of the shank, the base having a larger opening in its bottom and an expansion bolt inserted through the openings in the shoe and provided with a head at one end resting upon the shank around the smaller opening and fastened at its other end in an expansion shield in the floor.

3. In a partition, a base shoe for securing the posts or columns of the partition to the floor, comprising a base, a vertical shank integrally formed with the base, an opening in the shank, the base having a larger opening in spaced concentric relation with the opening in the shank, securing means passing through the openings and having an engagement with the shank at one end and fastened at the other end to the floor, and adjustable means for securing the post or column to said shank.

4. In a partition, in combination with a hollow post or column, a shoe for securing the post or column to the floor, comprising a flared base, a shank integrally mounted upon the base and inserted within the lower end of the column or post, said shank having an opening, the base provided with a larger opening, securing means inserted through the openings and engaged at one end with the shank and fastened at its other end to the floor, and means for adjustably connecting the post or column to the shoe.

5. The combination with a hollow post adapted to support a toilet partition off a floor, of a hollow shoe for securing said post to the floor, said shoe having an enlarged base and an upright shank fitting within the post, the shank being designed to support the lower end of the post, means for locking the post and shank together, and anchoring means for the shoe secured at the lower end in the floor and passing upwardly through the shoe and bearing at the upper end upon the top of the shank, said shank having an opening whereby the anchoring means is readily accessible to a tool to tighten the hold of the anchoring means.

6. In a partition, in combination, a post, or column having a horizontal slot and a vertical slot, a panel having an edge inserted within the vertical slot, and means for holding the panel in place, including a rail or stile provided with a plate projecting into the horizontal slot, and means engaging the plate within the post to lock the rail in position.

7. In a partition, in combination, a post having a horizontal slot and a vertical slot, the adjacent edges of the vertical slot being provided with inturned flanges projecting into the post, a panel having an edge projecting into the vertical slot, a clamping means engaging the flanges to lock the same against the faces of the panel, a rail or stile provided with a perforated plate adapted to project into the horizontal slot in the post, and means extending through the perforation of said plate and having cooperative engagement with the post to lock the end of the rail against the post.

8. In a partition, in combination, a post having a horizontal slot and a vertical slot, the adjacent edges of the vertical slot being provided with inturned flanges projecting into the post, a panel having an edge projecting into the vertical slot, a clamping means engaging with the flanges to lock the same against the faces of the panel, a rail or stile provided with a perforated plate secured to the inner side of the rail and adapted to project through the horizontal slot in the post, and a channel-shaped wedge embracing the inturned flanges, passing through the perforation in the plate and having cooperative engagement with the flanged side of the post to lock the end of the rail against the post.

9. In a partition, in combination, a post having spaced horizontal slots and a vertical slot, the adjacent edges of the vertical slot being provided with inturned flanges, top and bottom rails or stiles provided with plates projecting into the horizontal slots

in the post, a panel having its vertical edges inserted through the vertical slot and engaged by the inturned flanges and having its horizontal edges engaged in the rails or stiles, means engaging with each plate within the post and adapted to lock the ends of the rails or stiles to the post, and clamping means located between the locking means and provided with jaws engaging the flanges to securely bind the flanges on the vertical faces of the panel.

10. In a partition, in combination, a post having spaced horizontal slots and a vertical slot, the adjacent edges of the vertical slot being provided with inturned flanges, top and bottom rails or stiles provided with perforated plates projecting from the opposite ends of the rails into the horizontal slots of the post, a panel having its vertical edges inserted through the vertical slot and engaged by the inturned flanges, a channel-shaped wedge passing through the perforation in each plate and adapted to lock the ends of the rails against the post, and clamping means located between the wedges and provided with jaws engaging the flanges to securely bind the flanges against the vertical faces of the panel.

11. In a partition, a hollow post having a slot therein, and a hollow rail, and means for securing one end of said rail to said post, said securing means comprising a channeled plate having one end arranged within the rail and its flanges secured to the sides of the rail and bracing the same, the free end of the plate projecting through the slot within the post, and wedging means within the post engaging the said free end of the plate to lock the parts in position.

12. In a partition, a hollow post having a split face and top and bottom hollow rails each having a split face, one end of each of said rails being secured to the post, said securing means comprising a channeled plate having one end secured interiorly of the end of the rail with the channel portion secured to the sides of the rail and providing a bracing means for said ends, the free end of the plate projecting within the post and removably locked thereto.

13. In combination with a hollow post having a slotted face, top and bottom rails or stiles, a panel secured at its top and bottom to said rails or stiles and passed through the slot of the face of said post, means within the post for securing the edge of the panel thereto, and other means including an element connected to each rail or stile and projecting therefrom and entering the post, and a wedging device arranged within the post to lock the projecting part of said element to the post.

14. In combination with a hollow post having a split face and a slot intersecting the split portion of said face, a rail, a panel secured at one edge to the rail and having another edge inserted within the split portion of the post, securing means within the post for engaging that edge of the panel which projects within the post, means carried by the rail and projecting through the slot of the post into the latter, and other securing means spaced from said first-mentioned securing means and also arranged within the post for engaging the means projecting within the post.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature.

ARTHUR SHERIDAN HUGHES.