No. 848,100. PATENTED MAR. 26, 1907.

D. F. GREENAWALT.

DISPLAY RACK.

APPLICATION FILED MAR 24, 1906.

3 SHEETS—SHEET 1.

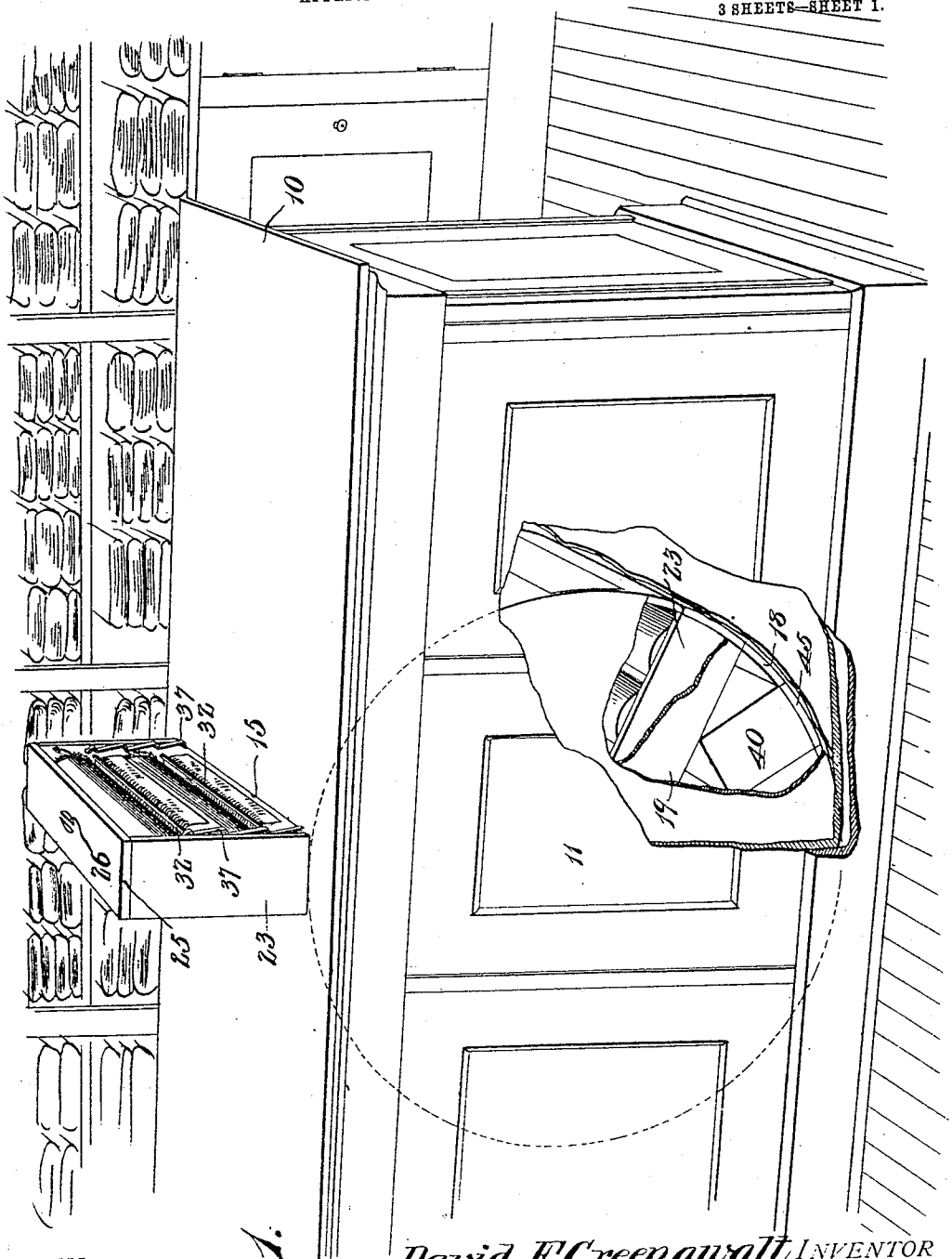

Fig. 1.

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3 SHEETS—SHEET 2.

Fig. 2.

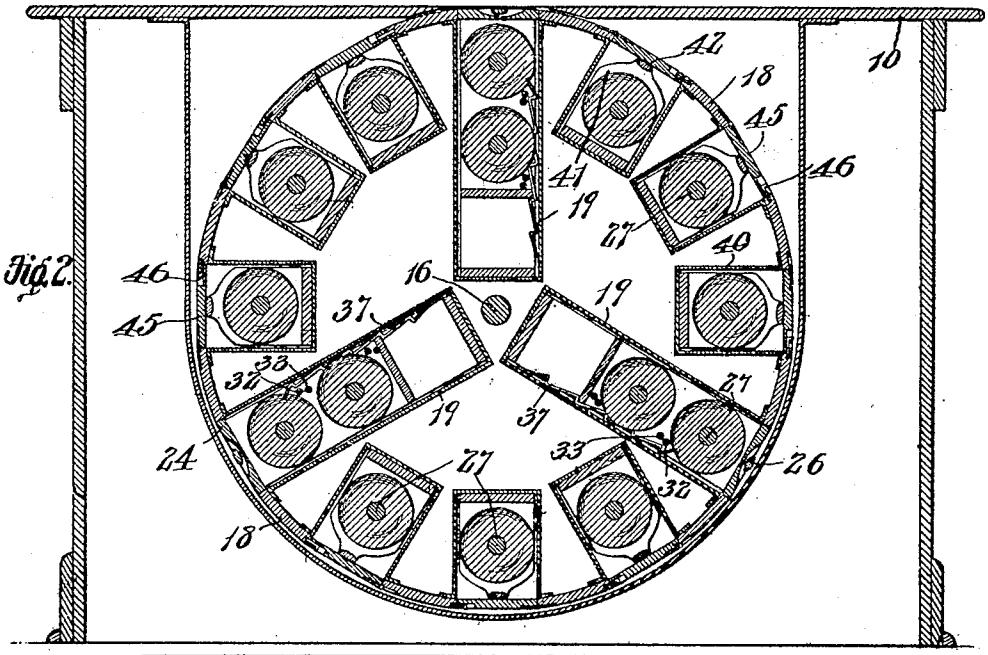
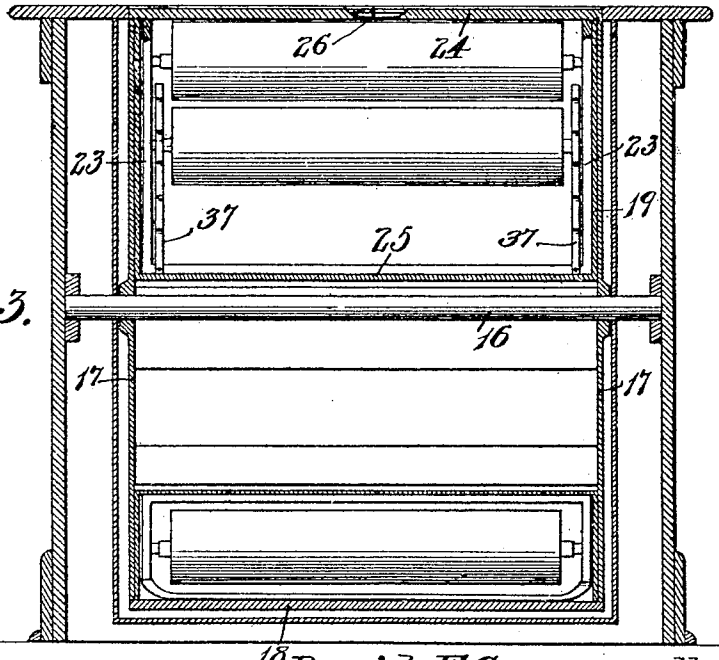


Fig. 3.



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3 SHEETS—SHEET 3.

Fig. 5.

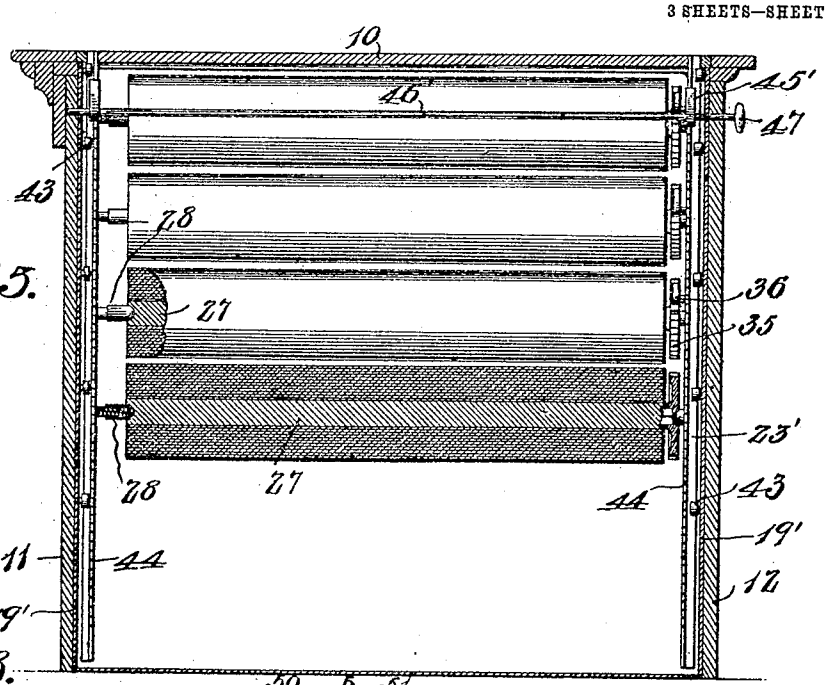
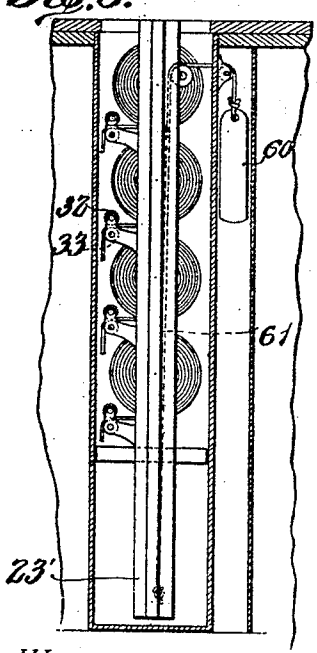


Fig. 8.



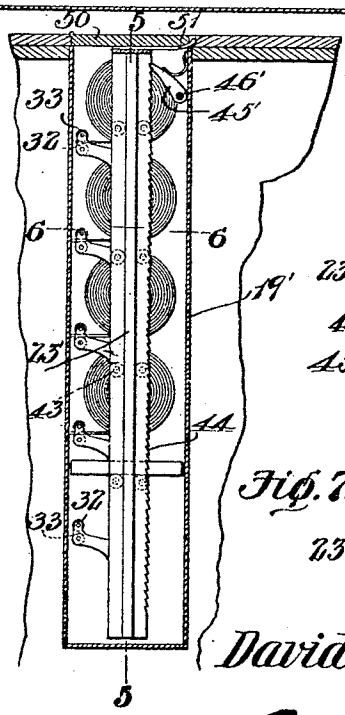


Fig. 4.

Fig. 6.

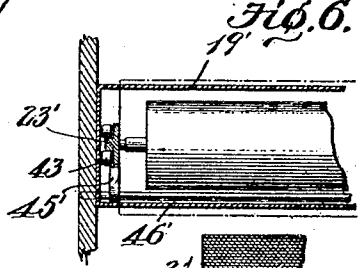
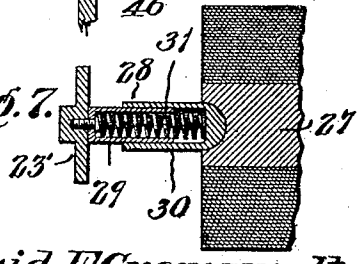


Fig. 7.



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UNITED STATES PATENT OFFICE

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DISPLAY-RACK.

No. 848,100. Specification of Letters Patent. Patented March 26, 1907.

Application filed March 24, 1906. Serial No. 307,898.

To all whom it may concern:

Be it known that I, DAVID F. GREENAWALT, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented a new and useful Display-Rack, of which the following is a specification.

This invention relates to apparatus employed for displaying silks, ribbons, and other fabrics in stores.

One of the principal objects of the invention is to provide a display apparatus that may be used in connection with a counter, casing, or similar support and in which the fabrics are arranged in rolls that may be drawn upward to a position above the top of the counter or casing for convenience in displaying and to permit the ready measuring and cutting off of any desired length of fabric, so that wide silks may be protected from damage.

A further object of the invention is to provide a display apparatus in the form of roll-carrying frames which may be drawn upward to expose one, two, or more rolls of fabric above the counter, the frames being placed at any desired distance from each other, and, by preference, a large number of frames are arranged within a cylindrical drum or box that may revolve for the purpose of presenting any frame to display position.

A still further object of the invention is to provide a display apparatus in the form of a revoluble cylinder carrying a plurality of roll-supporting frames which are adjustable into alinement with an opening in a counter or casing and through which the frames may be drawn to display the goods.

A still further object of the invention is to provide a display-frame carrying a roll of fabric and normally concealed below the surface of a counter or similar support, the roll being mounted with its longitudinal axis at a right angle to the length of the counter, so that when the roll is elevated any length of fabric may be drawn off over the counter to be measured and cut.

A still further object of the invention is to provide a display apparatus which will be thoroughly dust and dirt proof and so arranged and constructed that all of the rolls of fabric may be pushed or moved into dust-proof casings when the store is closed or when it is desired to use the counter for other purposes while the store is open, and, further, to provide a display apparatus of such nature as to permit the adjustment of the rolls of fabric to display position quickly and with comparatively little exertion.

A still further object of the invention is to provide a display apparatus in the form of a roll-holding frame in which the rolls are so arranged as to permit the ready removal of the core or support of a nearly-exhausted roll and the replacing of a filled core, all of the rolls being made interchangeable, so that goods of the same quality or of the same shade or price may be retained adjacent to each other for comparison.

A still further object of the invention is to provide a display-frame carrying rolls of silk or other fabric and to provide means whereby the fabric is held comparatively taut and free from wrinkles, and held from unwinding loosely from the roll.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of the fabric-display apparatus constructed in accordance with the invention, showing the same applied to a counter or similar casing. Fig. 2 is a sectional view transversely of the frame-carrying drum or cylinder. Fig. 3 is a vertical longitudinal section of the same. Fig. 4 is a vertical section illustrating a slight modification of the invention, wherein single frames are mounted within suitable pockets or casings supported by the counter. Fig. 5 is a vertical section of the same on the line 5 5 of Fig. 4. Fig. 6 is a sectional plan view on the line 6 6 of Fig. 4. Fig. 7 is a detail view showing one of the yieldable supporting-studs on which each roller is mounted. Fig. 8 is a view similar to Fig. 4, showing the employment of a counterweighted frame.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The counter or show-case 10 may be of any desired width and length and is provided with closed front and back panels 11 and 12 for the purpose of forming dust-proof closures, and such panels may, if desired, be formed of transparent material in order that the whole apparatus may be viewed by the purchaser. In the top of the counter is arranged an opening 15, there being as many of such openings as there are display mechanisms and the length of each opening extending transversely across the counter, so that the rolls of fabric when brought up above the level of the counter may be drawn out to any desired length to be measured and cut.

At a suitable point about midway of the vertical height of the counter are arranged bearings for a transversely-disposed horizontal shaft 16, which carries a drum or cylinder of such diameter that its periphery will be flush with the top of the counter, the lower surface of the top being cut away on curved lines, as illustrated in Fig. 2. The drum comprises end disks 17, which are connected at their peripheries by a series of transversely-disposed arcuate bars 18, and said bars serve as supports for a number of radially-arranged casings 19, that serve to receive the display racks or frames.

The drum may be provided with any desired number of casings, the number being limited only by the size of the drum, and in each of the cases is a display-rack that may be drawn out from the periphery of the drum through the opening 15 and exposed above the top of the counter, each of the frames carrying one or more rolls of silk, ribbon, or any other fabric.

One of the most simple display racks or frames is that illustrated in Figs. 2 and 3, each rack comprising a pair of vertically-disposed side bars 23, that are connected at the top or outer end by a bar 24 and at the bottom or inner end by a similar bar 25. When the display-rack is moved in the casing 19, the outer bar 24 forms a closure that is in alinement with the periphery of the drum and prevents the entrance of dust and dirt. This bar 24 is provided with a depressed handle 26, which may be grasped for the purpose of drawing out the rack or frame to the position shown in Fig. 1. The vertical bars 23 are provided with suitable studs for the reception of the ends of the cores 27, on which the rolls of fabric are wound, these cores being usually formed of wood and being so arranged as to permit their ready removal in case it is desired to replenish a roll or to bring goods of the same quality, tint, or price closely together for purposes of comparison. One of the studs may be fixed, while the other stud 28 is formed of two telescopic sections 29 and 30, that are held apart by a coiled compression-spring 31, the arrangement being such that by moving the roller in the direction of the front stud the spring 31 may be compressed in order to permit the dismounting of the roller from both studs.

When the silk or other fabric is wound on the core 27, it becomes desirable to provide means for preventing accidental unwinding and loosening of the fabric, and for this purpose the end of the fabric is passed between a pair of rollers 32 and 33, which clamp tightly on the fabric, the roller 33 being preferably formed of glass or of yieldable material. The cores 27 are provided at one end with ratchet-wheels 35, which are engaged by suitable pawls 36, that tend to prevent unwinding of the rollers, so that the fabric will be firmly held in place and cannot be accidentally unwound. The clerk by raising the pawl from the ratchet-wheel leaves the roller free, so that any desired quantity of goods may be withdrawn from the same.

In order to maintain the rack or frame in its elevated position after withdrawal, one or more shouldered spring-strips 37 may be employed, these being carried by the lower cross-bar 25, but being arranged to engage with the periphery of the drum or the top of the counter for the purpose of holding the frame in the position to which it is adjusted, and said frame may be drawn out and locked in place to expose one, two, or more of the rollers, if desired. To force the frame back into its proper casing, the springs may be forced from engagement with the periphery of the drum or counter and the frame depressed, or by pressing forcibly downward on the frame the springs may be made to yield to an extent sufficient to permit its downward movement.

The several casings 19 may each contain a separate display rack or frame, and there may be any number of such casings; but where the device is used in connection with a counter it is found desirable to employ a number of smaller casings 40, each of which is arranged to contain a small frame 41, carrying a single roller. This frame 41 has an elevating and carrying handle 42, so that when moved into alinement with the opening 15 of the counter the casing may be removed and placed in any position on the counter. These frames 41 are preferably held in place during rotative movement of the drum by means of doors 45, that are in alinement with the vertically-disposed cross-bars 18, and said doors may be locked in place by slidable catches 46 or by any other suitable locking means.

Any suitable mechanism may be employed for rotaitng the drum to present any of the drums in alinement with the opening 15, and as the weight is evenly balanced the frame may be readily rotated by inserting the fingers through the opening of the counter, and when the drum has been rotated to the desired extent the salesman may grasp the han-

dle 26 of the frame or rack and draw the same up to the position shown in Fig. 1, thus displaying the rolls. When drawn up to this position, the lower cross-bar 25 will serve as a cover for the open end of the casing, being drawn up to alinement with the peripheral bars 18 of the drum and serving to exclude dust and dirt from the casings.

In the construction shown in Figs. 4 and 5 the casings 19′ are rectangular in form, and each is permanently secured to the counter. These casings may be made to contain larger frames than where the drum is used, the height of the counter remaining the same, and the single casings may be placed at intervals along the length of the counter, so that when all are drawn up to display position a large stock of goods may be shown without handling and in a very small space. The casings 19′ are arranged to contain frames having side bars 23′, that are preferably of T shape in cross-section, the central web of each of the bars being engaged by guiding-rollers 43, projecting inward from the end walls of the casing. The bars 23′ may in this case be provided with rack-teeth 44 and engaged by spring-pressed pawls 45′, that are mounted on a rock-shaft 46′, extending across the counter and having an operating-handle 47, that is disposed within convenient reach of the salesman. This permits raising of the display rack or frame to any desired height, and the pawls will automatically lock the frame or rack in the position to which it is adjusted. Downward movement of the frame or rack within the casing may be permitted by turning the handle 47 and withdrawing the pawls 45 from engagement with the racks.

In the construction shown in Figs. 4 and 5 the upper lid of the casing is preferably formed of a strip or plate 50, that is pivoted at one end to the counter, and at the top of the display rack or frame is a flexible loop 51, the end of which is exposed at one side of the lid, so that by grasping the loop the lid may be thrown back and the frame raised to display position at a single movement.

Fig. 8 illustrates a construction similar to that shown in Fig. 4; but in this case counterweights 60 are connected to the lower portions of the frame by flexible cords or chains 61 for the purpose of counterbalancing the weight of the frame and the goods, this being desirable where very large quantities of goods are carried by the frames. In this case it will not be necessary to employ any means for positively locking the display-frames in elevated position, friction being relied upon to hold the frames elevated.

The apparatus is found of especial value in the selling of wide silks. Ordinarily these silks are folded and kept on shelves from which they must be withdrawn and opened on the counter, and the constant display of silks in this manner results in very rapid deterioration, as will be readily understood. In the present case the silks are wound on rolls and are not handled by the purchaser. They are, furthermore, fully protected from dust and dirt, and a very large quantity of goods can be exposed in a position most favorable for examination and in a comparatively small space.

I claim—

1. The combination with a counter or casing having a top opening, the length of which is at a right angle to the width of the counter, or casing, a vertically-adjustable rack normally concealed below the counter and movable through the opening to display position, and article-supporting means carried by said frame.

2. The combination with a counter or casing having a top opening, the length of which is at a right angle to the width of the counter or casing, a vertically-movable rack normally concealed below the counter and movable through the opening to display position, and fabric-supporting rollers carried by said frame.

3. In apparatus of the class described, a counter or casing having a top opening, a revoluble drum having its axis in the vertical plane of the opening, a series of display-racks mounted in the drum and movable opposite the opening, said racks being adjustable through said opening to display position, and means for locking the racks in elevated position, and preventing their return by gravity to position within the drum.

4. The combination with a counter or casing having a top opening, of a revoluble drum arranged within the opening, casings carried by said drum, vertically-adjustable display racks or frames disposed within said casing, and means for locking the racks in elevated position and preventing their return by gravity to position within the drum.

5. The combination with a counter or casing having an opening, of a revoluble drum, a plurality of casings carried by the drum, display racks or frames mounted within said casings and adjustable through the opening to display position, and bars carried by the frames and movable into alinement with the periphery of the drum to form closures for said casings.

6. The combination with a counter or casing, having a display-opening, of a revoluble drum, a plurality of casings carried by said drum, vertically-adjustable display racks or frames arranged within the casings and movable through the opening to display position, and a pair of bars carried by each rack, both bars being adjustable into alinement with the periphery of the drum, the upper bar serving as a closure for the casing in one position, and the inner bar serving as a closure when the rack is in display position.

7. In apparatus of the class described, a counter having an opening, a revoluble drum arranged below the opening, a vertically-adjustable display-rack carried by the drum and movable through the opening, and means for holding the rack in elevated position, the rack when in elevated position serving to prevent rotative movement of the drum.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID F. GREENAWALT.

Witnesses:
E. HUME TALBERT,
JNO. E. PARKER.