(No Model.)

J. D. McMILLAN.

HOLDER FOR ROLLED MATERIAL.

No. 594,485. Patented Nov. 30, 1897.

Fig: 1.

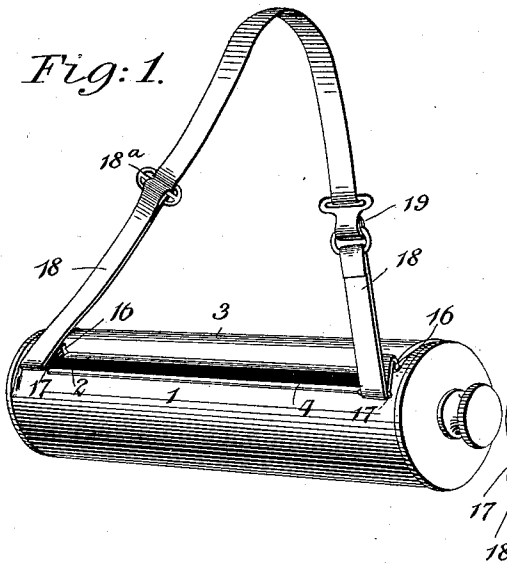


Fig: 2.

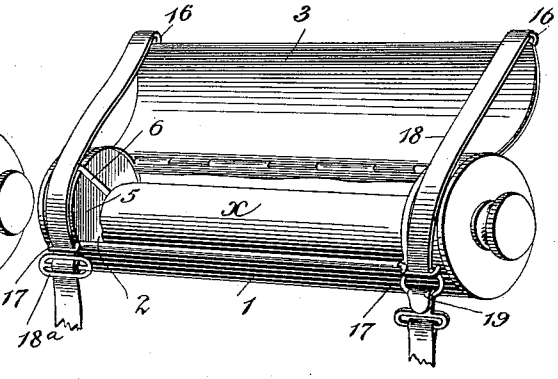


Fig: 3

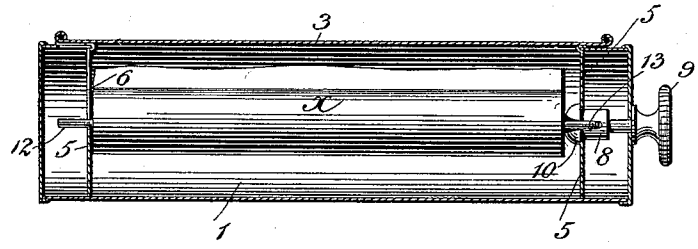


Fig: 4.

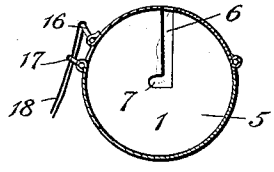


Fig: 6.

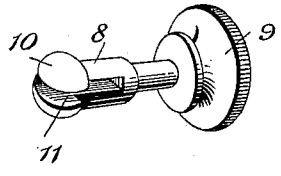
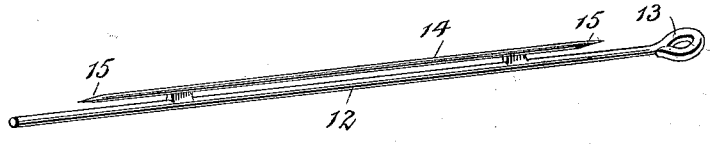


Fig: 5.



Inventor

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UNITED STATES PATENT OFFICE.

JAMES D. McMILLAN, OF MACOMB, ILLINOIS.

HOLDER FOR ROLLED MATERIAL.

SPECIFICATION forming part of Letters Patent No. 594,485, dated November 30, 1897.

Application filed April 22, 1897. Serial No. 633,278. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. McMILLAN, a citizen of the United States, residing at Macomb, in the county of McDonough and State of Illinois, have invented a new and useful Holder for Rolled Material, of which the following is a specification.

This invention relates to certain improvements in holders for rolled materials, and especially in that class of holders which are adapted for the use of dentists for holding sheet-rubber in rolled form; and the object of the invention is to provide a device of this character of a simple and inexpensive nature which shall be adapted to hold the rubber in a convenient manner while being used and which shall permit of economizing in the use of the rubber.

The invention consists of a holder comprising a cylindrical casing provided within its ends with internal partitions and with a radial slot in one of said partitions, a rotative stem journaled in one end and the adjacent partition, a spindle coupled at one end to the rotative stem and fitted at its other end in the slot of the partition near the opposite end of the casing, and means for suspending the casing, whereby the holder may be arranged in convenient position for use and the sheet-rubber may be held under tension by adjusting the spindle to hold the rubber taut between the casing and the place to which the protruding edge of the rubber may be attached.

The invention also contemplates certain novel features of the construction, combination, and arrangement of the various parts of the improved holder whereby certain important advantages are attained and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth. The novel features of the invention will be carefully defined in the claims.

In order that my improvements may be the better understood, I have shown in the accompanying drawings a holder constructed in accordance with my invention, in which drawings—

Figure 1 is a perspective view showing the improved holder. Fig. 2 is a view similar to Fig. 1, but showing the holder in an opened position. Fig. 3 is an axial section taken through the holder, showing the engaging devices between the end of the spindle and the rotative part at the end of the holder. Fig. 4 is a sectional view taken transversely through the holder, showing the recess in the end thereof wherein the end of the spindle is held. Fig. 5 is a perspective view showing the spindle of the improved device, together with the means for attaching the end of the sheet of rolled material thereto. Fig. 6 is a detail view drawn to an enlarged scale and showing the rotative part of the device detached.

In the views, 1 indicates the body of the improved holder, which is made from sheet metal or other suitable material in the form of a drum or hollow cylinder having an opening 2 formed in its side wall, the opposite edges of said opening being reinforced by means of wires in a well-known way, and one of said wires being employed as a pivot whereon is hinged a cover 3, adapted to be closed over said opening 2 in such a manner as to hold the rolled material in place therein while leaving a narrow opening or slit 4, extending longitudinally of the holder at one side of said cover, said slit being adapted for the passage of the end of the sheet of rolled material, as indicated in Fig. 1.

The ends of the holder are made circular in form, as clearly shown in the drawings, and each end is provided with a partition 5, between which and the end plate of the holder is formed a chamber, and in the partition 5 at one end of the holder is formed a slot 6, extending from the peripheral surface of the holder at one end of the opening 2 therein toward the center of said partition, at which point said slot is formed with an angular portion 7, as shown in Fig. 4. The slot 6 is adapted to receive one end of the spindle whereon the rolled material is carried, said end of the spindle being held in the angular end portion 7 of the slot, and in order to hold the spindle engaged in said slot the outer or open end of the slot 6 is adapted to be closed by the cover 3, as is shown in said sectional view Fig. 4.

At the end of the holder opposite to the end whereat the slot 6 is located is arranged a rotative part formed of a stem 8, mounted

to turn in openings formed centrally in the end wall of the holder and in the partition adjacent thereto, this stem 8 being provided at one end with a head or thumb-piece 9, arranged at the outer side of the holder and adapted to be held by the fingers of the operator for turning said stem, the inner end of the stem being also headed or enlarged, as indicated at 10 in the drawings, to prevent the removal of the stem from the holder and being formed with a kerf extending through it, as shown at 11, in which kerf is adapted to be inserted the end of the spindle, whereon the sheet of rolled material is held, opposite to that end of said spindle which is held to turn in the slot 6. The diameter of the stem 8 between the head 10 and the protruding end is equal substantially to the width of the flattened end 13 of the spindle 12, and said stem 8 is thus adapted to receive within its kerf 11 the flattened end of the spindle in a manner to have said end of the spindle flush with or slightly within the cylindrical surface of said stem. The spindle 8 is thus free to turn in the opening provided in the partition 5, so as to hold the flattened end of the spindle connected to the stem to insure the spindle rotating with the stem. The head or thumb-piece 9 is preferably screwed to the protruding end of the stem, and when it is desired to place the stem in position the thumb-piece 9 is detached, the stem is passed from the inside of the shell through the openings in the partition 5 and the end of the shell, and the thumb-piece is then screwed on the protruding end of the stem, so as to draw the stem endwise and bring its head 10 to bear against the partition 5, the head 10 and the thumb-piece 9 serving to hold the stem against endwise movement in the partition and end wall of the shell or casing.

The spindle whereon the rolled material is held is shown in detail in Fig. 5, and, as seen in said figure, the spindle comprises a body portion 12, formed, as herein shown, of a metal wire or rod of a suitable length, having at one end a flattened loop 13, adapted for insertion in the kerf 11 in the inner headed end 10 of the stem 8 and having its opposite end adapted to be inserted and held to turn in the angular portion 7 of the groove 6 at the opposite end of the holder, the said spindle being provided at its central portion with a metal wire or rod 14, secured to and extending parallel with the body portion of the spindle and having its end portions 15 pointed and arranged to project in position to be passed through the end portion of the sheet of rubber or other material (shown at *x* in the drawings) which is to be wound upon the spindle.

The edges of the cover 3 for the opening 2 in the holder are wired similarly to the edges of the opening 2 therein, and at the opposite ends of the free edge of said cover the wire held at said edge is arranged to project, as indicated at 16, to form loops or eyes, and the ends of the wire held at the adjacent edge of the opening 2 in the holder are also arranged to project so as to form similar eyes 17, and these eyes 17 serve for the passage of tapes 18, which are formed into loops passing around the loops or eyes 16, one of said tapes being provided with a buckle or adjusting device, as shown at 18^a in the drawings, and the free ends of the tapes being provided with fastening devices, as shown at 19.

In using the improved holder the tapes are passed around the neck of the patient, and the adjusting device is operated so as to adjust the length of the tapes in such a way that the holder will rest upon the breast of the patient, after which the free end of the strip of material *x*, rolled upon the spindle in the holder, is drawn out through the slit in the holder and inserted in the patient's mouth. After the rubber has been placed in position the thumb-piece of the stem 8 is turned so as to place a proper tension upon the rubber, after which the operation may be performed.

By the above description it will be seen that the improved holder is especially well adapted for use by dentists, since it permits of effecting a considerable economy in the use of the rubber and also enables the operator to dispense with the employment of weights or similar devices for holding the rubber in position, since, as will be evident, the strain imposed upon the end of the rubber by means of the thumb-piece of the rotative part will be imposed equally upon the edge of the sheet instead of at only a few points along the same, as is the case where the sheet-rubber is cut off from the roll before being used. Moreover, the device provides a convenient casing for holding the rubber, and it will be seen from the above description that the invention is capable of some modification without material departure from its principles and spirit, and for this reason I do not wish to be understood as limiting myself to the precise form and arrangement of the parts herein set forth.

What I claim is—

1. In a holder for dentists' sheet-rubber, the combination with a casing provided near its ends with the interior partitions, one of which has a radial offset slot, of the rotative stem 8 having a headed inner end provided with a longitudinal kerf which opens through the headed end of said stem which is journaled in one end wall and partition of the casing to be held therein against endwise movement, and a spindle having a flattened end detachably engaged with the kerf-formed end of the rotative end piece to be held therein by the partition in which it is journaled, the other end of said spindle being fitted in the slotted partition and said spindle removable from the casing by withdrawing one end from said slotted partition and detaching its flattened end from said rotative end piece, substantially as described.

2. A holder for dentists' sheet-rubber com-

prising a casing having a hinged cover arranged to partially close an opening in said case and to leave a continuous slot through which the contents of the case may be drawn when the cover is closed, a partition fixed within said casing and provided with a radial slot which opens into the opening in said casing and is adapted to be closed by the cover, a rotative stem journaled in said casing, and a spindle fitted detachably in said stem and the radially-slotted partition, substantially as described.

3. In a holder for dentists' sheet-rubber, a spindle provided with a bar 14 which is attached to said spindle in parallel relation thereto and having pointed free ends adapted to penetrate a rubber sheet and thereby attach the same firmly to the spindle, as set forth.

4. In a holder for dentists' sheet-rubber, the combination of a shell having a hinged cover, a spindle journaled in said shell and provided with means for adjusting the same, and a suspension-strap attached to the cover and slidably connected to the shell, as and for the purposes described.

5. In a holder for dentists' sheet-rubber, the combination with a carrying-case, and a cover therefor, of a suspending device slidably connected to the case and attached to the cover to hold the same normally closed, substantially as described.

6. A holder for rolled material comprising a body having an opening in its wall, a cover to partially close the opening, loops on the body at opposite ends of the opening, other loops on the cover at opposite ends of the same and adjacent to the loops on the body, and tapes passed through the loops on one part and engaging the loops on the other part, substantially as set forth.

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

JAMES D. McMILLAN.

Witnesses:

S. E. PURDUM,

CHARLES W. FLACK.