

1,046,474.

Patented Dec. 10, 1912.

2 SHEETS—SHEET 1.

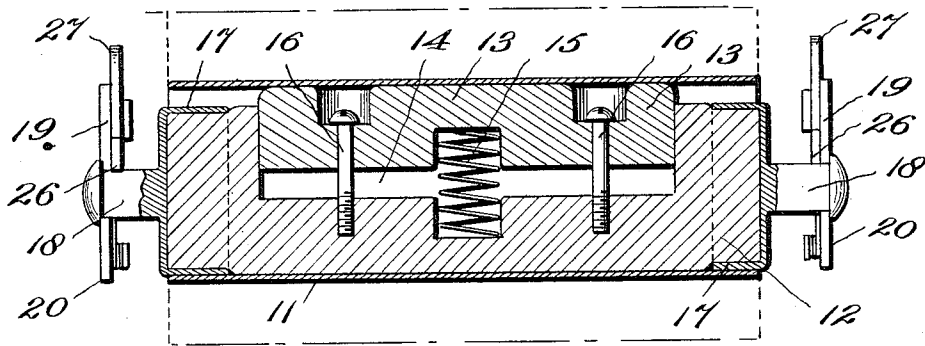


Fig. 1.

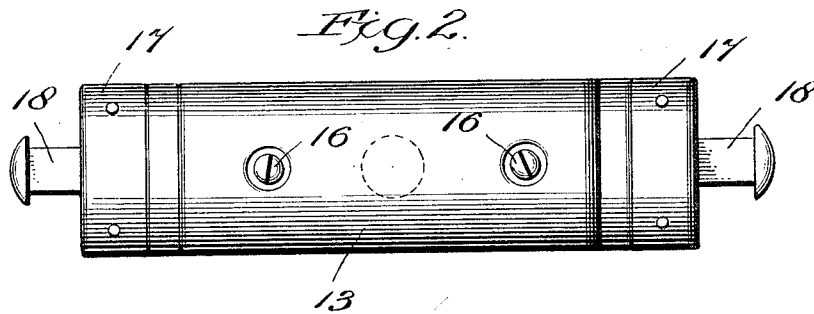


Fig. 2.

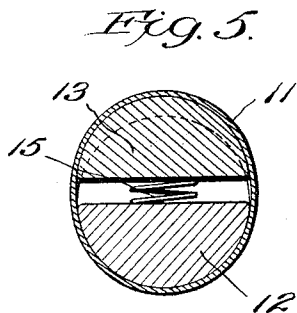


Fig. 5.

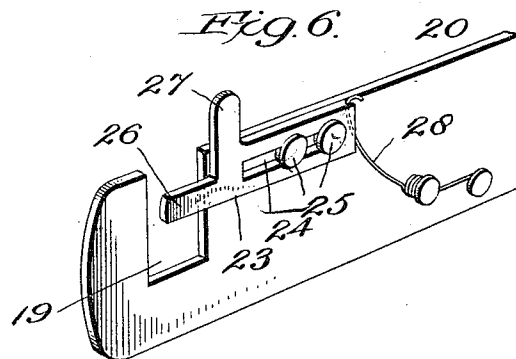


Fig. 6.

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Ella C. Hansen.

Moses M. Marcuse
Inventor

By his Attorney
Wilkinson, Fisher, Witherspoon and Mackaye.

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2 SHEETS-SHEET 2.

Fig. 3.

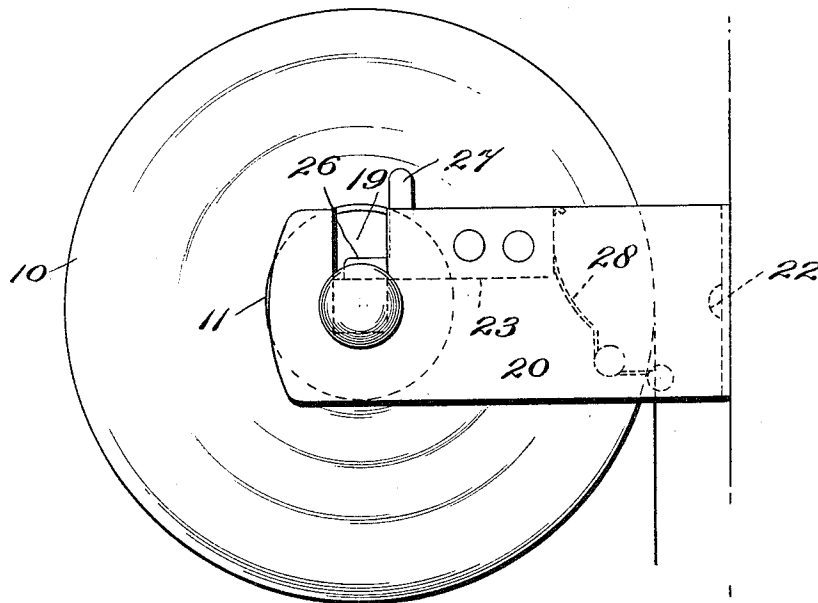
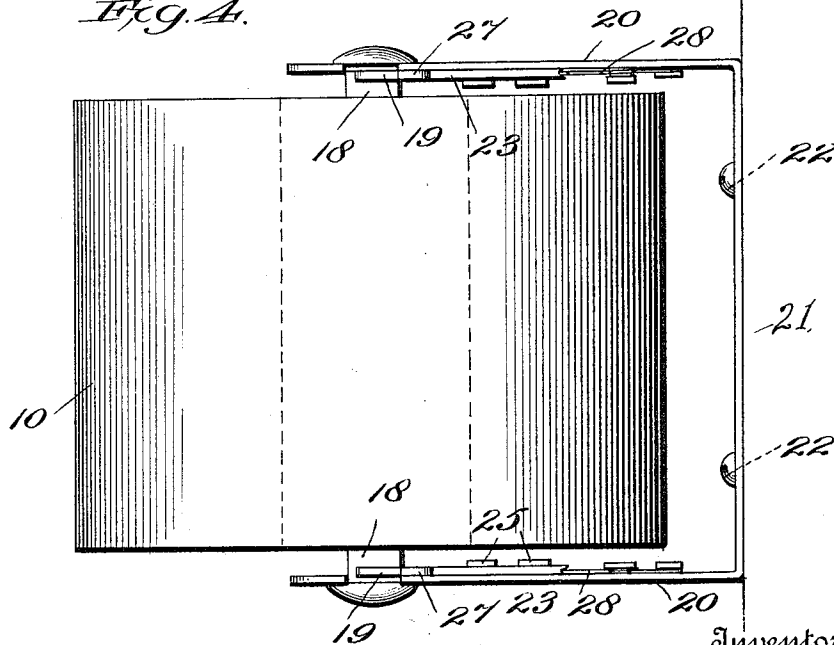


Fig. 4.



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UNITED STATES PATENT OFFICE.

MOSES M. MARCUSE, OF NEW YORK, N. Y., ASSIGNOR TO WEST DISINFECTING COMPANY,
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MOUNTING FOR FLEXIBLE ROLLED MATERIAL.

1,046,474.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed April 18, 1912. Serial No. 691,759.

To all whom it may concern:

Be it known that I, MOSES M. MARCUSE, a citizen of the United States, residing at the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Mountings for Flexible Rolled Material; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

It is the object of the present invention to supply a support for flexible material in rolled-up form, such as rolls of paper, cloth, etc., whereby substantially uniform tension is permanently secured tending to resist the unrolling of the material and whereby such tension can be adjusted to meet the requirements in any given case.

The invention is particularly adapted for mounting rolls of toilet paper suitably perforated and wherein the tension produced insures the slow unrolling of the paper in a manner convenient for use. While the invention is shown in the accompanying drawings as applied to this last named use, it is to be understood that the scope of the invention covers its application to any flexible material in a rolled-up form.

In the accompanying drawings, Figure 1 is a section through the support, Fig. 2 is a plan view of the support, Fig. 3 is a side elevation of a preferred form of mounting, Fig. 4 is a plan view of the same, Fig. 5 is a transverse section of the support and Fig. 6 is a perspective detail view of one of the side locks.

The invention comprises the use of an internal hollow core or sleeve around which the material is coiled or wound, combined with an expanding internal support arranged to exert a permanent spring tension against the interior surface of the core or sleeve. The internal support is locked at its ends so as to be unable to revolve and in consequence the core or sleeve is revolved against a certain degree of friction around the internal support when the outer material is unwound.

In the form shown in the drawings for toilet paper, the roll of paper is shown at 10 and is wound upon a paste board or similar hollow sleeve 11 within which is introduced the expanding internal support. This

support is preferably made in the form shown so as to be easily introduced into the core from either end and consists in the specific form illustrated of two parts 12 and 13 which are movable relatively one to the other. The portion 12 is cut out at 14 to admit the relatively movable part or member 13 and between the two parts or members 12 and 13 is introduced the spring 15 which tends constantly to push the part or member 13 away from the center of the internal support. This tendency is limited by suitable stops, which in the form shown, consist of screws 16 engaging the suitable threads in the part 12 and passing through suitable openings in the part 13, in such a manner that the heads of the screws prevent excessive movement of the part 13 outward and keep the spring 15 compressed in place. By suitable manipulation of these screws, the outward pressure or spreading effect exerted between the two parts 12 and 13 of the central support can be suitably limited. It is evident that when this two-part support is introduced into the sleeve 11 it exerts a frictional tendency upon the sleeve which opposes the revolution of the sleeve upon the central support, and this tendency can be modified and controlled within certain limits by suitable manipulation of the screws 16. I prefer to form the outer end edges of the member 13 in a suitable curve or bevel as shown in Fig. 1, such that when the two-part support is thrust into the end of the sleeve or core 11, the pressure of the end of the core upon these curved edges will force the members 12 and 13 together and facilitate the introduction of the support into the core. In the preferred form shown, the ends of the part or member 12 of the central support are provided with a collar 17 on each end from which there extend the squared projections 18 which serve to carry the weight of the whole when these projections are dropped into the slots 19 at the ends of the side brackets 20. These brackets may be connected by the strap 21 at the rear which may be supported in any desired manner, as shown for instance, by the screws 22.

In order to lock the support in place, I prefer to use sliding plates 23 supported by means of a straight slot 24 sliding upon pins or screws 25, which plate has an extension 26 normally riding over the top of one of the projections 18 on each side and also with

a thumb piece 27, whereby the plate may be pushed back to liberate the support. The plate 23 is normally pushed forward in a locking position by the spring 28 fixed to the side bracket 20 and operates in a well known manner to normally lock the support in place.

It will be seen that the squared projections 18 are prevented by the square slot 19 from revolving so that the roll of paper 10 or similar material can only be unrolled by causing the sleeve 12 to slide against friction around the central support.

By providing the internal sleeve 11, of fixed diameter and resistance and combining it with an internal spreading member or support of uniform frictional resistance, I am able to maintain uniform, the resistance to revolution of the outer roll.

What I claim is—

1. A mounting for rolls of flexible material comprising in combination a hollow core upon which to wind the material, a two-part internal support therefor, means for forcing apart the members of said support and a non-revoluble mounting for said internal support, substantially as described.

2. A mounting for rolls of flexible material comprising in combination a hollow core upon which to wind the material, an internal support therefor having a member cut away on one side, a second relatively movable member adapted to slide within the space so provided, and a spring between the two, and a non-revoluble mounting for said internal support, substantially as described.

3. A mounting for rolls of flexible material comprising in combination a hollow core upon which to wind the material, an internal support therefor having a member

cut away on one side, a second relatively movable member adapted to slide within the space so provided, and a spring adapted to force said members apart, an adjustable screw arranged to limit the degree of separation of said members, and a non-revoluble mounting for said internal support, substantially as described.

4. A mounting for rolls of flexible material comprising in combination a hollow core upon which to wind the material, an internal support therefor having a longer and a smaller member arranged in substantially parallel relation, said smaller member having beveled end edges to facilitate introduction of the whole within the core, a spring for forcing said members apart, means for preventing excessive separation of said members, and a non-revoluble mounting for said internal support, substantially as described.

5. A mounting for rolls of flexible material comprising in combination a hollow core upon which to wind the material, an internal expanding frictional support therefor having end projections of polygonal cross section, suitably slotted brackets for receiving said projections, locking plates slidably mounted on said brackets and having upwardly extending thumb-pieces and springs on said brackets adapted to push said plates forward over said polygonal extensions when in place in said slotted brackets, substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

MOSES M. MARCUSE.

Witnesses:

CLAIRE KEYSER,
JOS. R. OPPENHEIMER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."