Nov. 5, 1957 M. E. SLOAN 2,811,733

REVOLVING AND STATIONARY WAX APPLICATOR

Filed Nov. 1, 1954 2 Sheets-Sheet 1

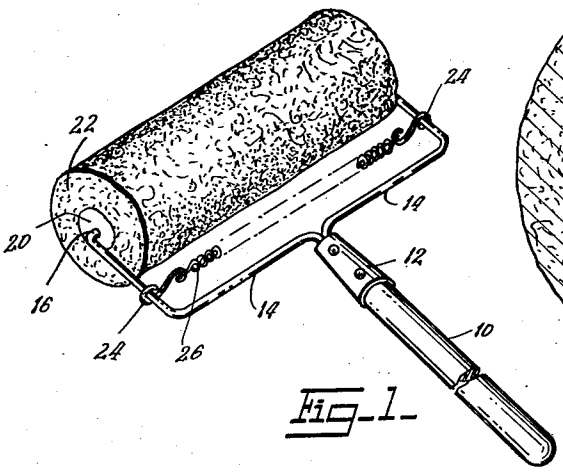

Fig. 1.

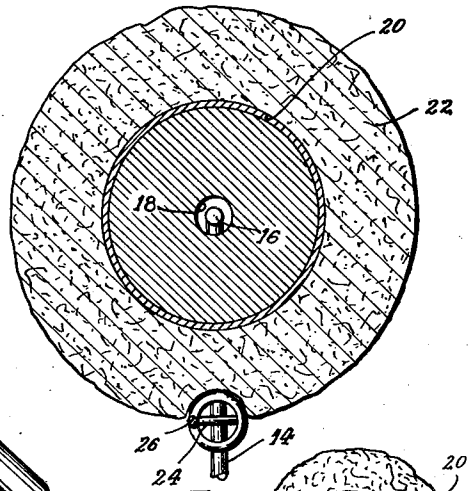

Fig. 3.

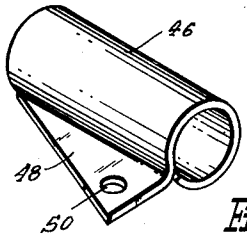

Fig. 8.

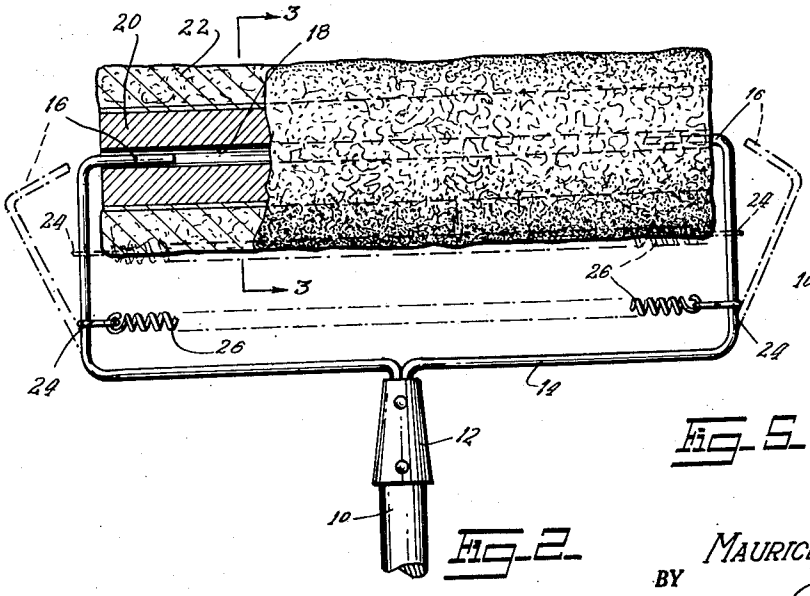

Fig. 2.

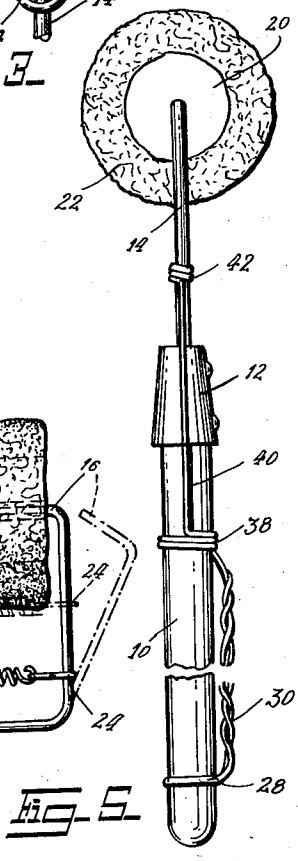

Fig. 5.

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REVOLVING AND STATIONARY WAX APPLICATOR

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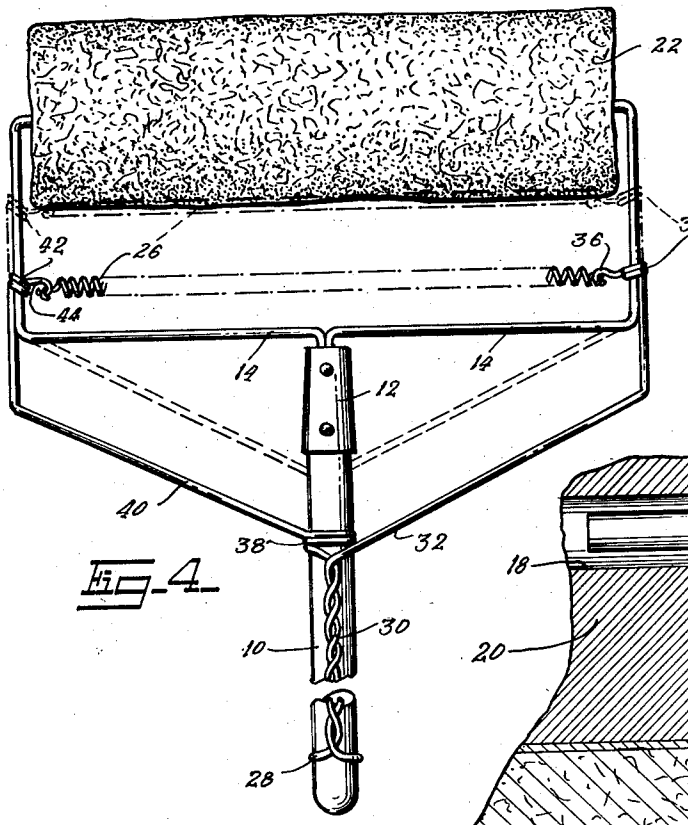

Fig. 4

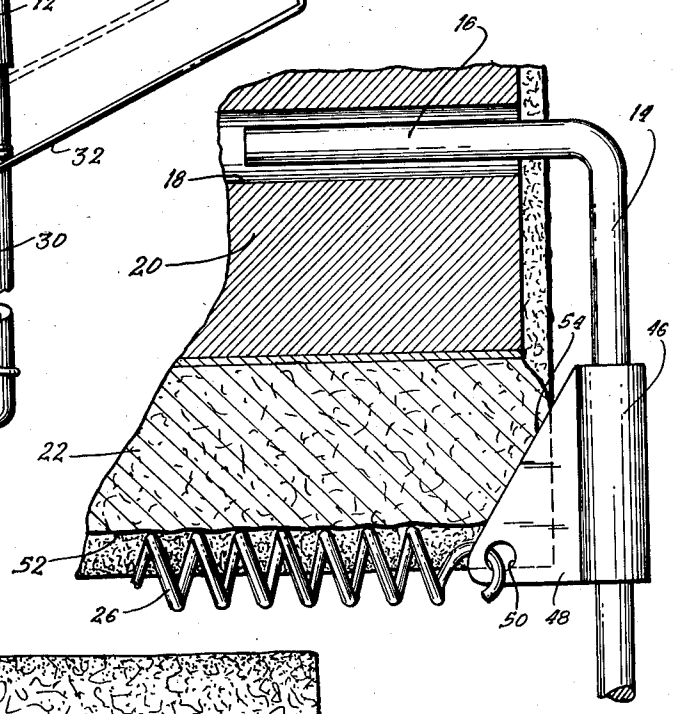

Fig. 7

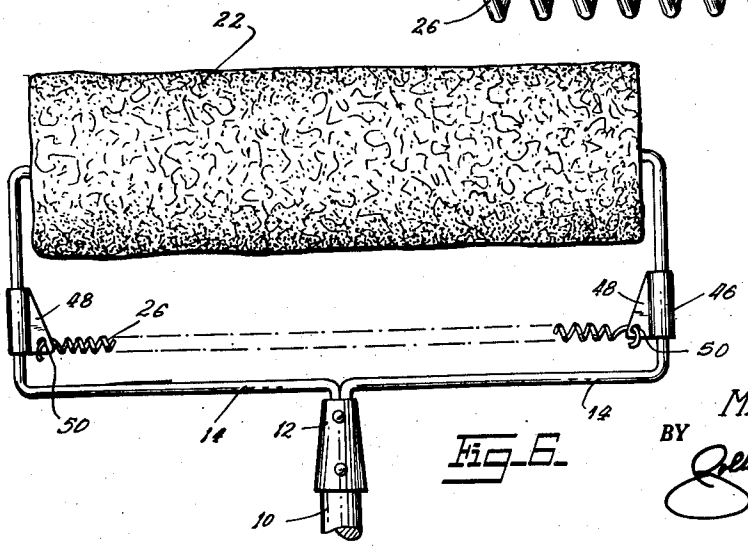

Fig. 6

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REVOLVING AND STATIONARY WAX APPLICATOR

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Application November 1, 1954, Serial No. 465,855

10 Claims. (Cl. 15—230)

This invention relates to applicators such as those having pads of lamb's wool or the like, used for waxing floors.

The invention has particular reference to wax applicators of the manually operated type, as distinguished from those that are motor powered. It has been observed, in this regard, that in general, manually operable wax applicators are provided with flat surfaced applicator heads, to which a piece of lamb's wool or similar soft material is attached. Most usually, this construction results in the necessity of folding a substantial part of the piece into the component parts of the applicator head, to attach the piece securely to said head. By reason of this arrangement, the folded back portions do none of the work of coating the floor surface with wax, and the lamb's wool is in contact with the floor surface only so far as the exposed part of the applicator is concerned.

It is the broad object of the present invention to generally improve upon wax applicators of the type referred to, by the provision of a cylindrical applicator head covered by a suitable piece of lamb's wool or the like, which head can be either rotated or held stationary, as desired. In this way, it is proposed that the entire surface of the lamb's wool be selectively brought into contact with the floor surface.

The invention has particular applicability toward usage in connection with both those waxes which are applied without rubbing, and those which are first spread upon the floor surface and then rubbed to bring out the desired waxy finish. When waxes of the first type are to be applied, the applicator constituting the present invention is adapted to be rotated, so as to uniformly distribute the wax upon the floor surface. When waxes that are to be rubbed are applied, the cylindrical head is held stationary relative to the handle portion of the structure, so as to be efficiently adapted to be rubbed back and forth upon the floor surface. It will be appreciated, in this regard, that the selectively used rotatable or stationary arrangements permit one to first spread or distribute a wax by rolling of the applicator head over the floor surface, and to then rub the wax smooth while holding the head stationary.

Another object of importance is to provide an applicator of the character referred to which will be so designed as to permit ready detachment of the applicator head, for substitution of a new covering upon the core thereof. In this manner, it is proposed not only to permit substitution of a new lamb's wool bonnet for an old one, but also to permit the free interchange of cloth bonnets, cylindrical floor mops, and various other surface conditioning devices that can be attached to the single handle.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a wax applicator formed in accordance with the present invention.

Fig. 2 is an enlarged top plan view in which the head is shown partially in longitudinal section, the handle being partially broken away, the dotted lines showing the positions of the yoke arms when the head is being disengaged therefrom.

Fig. 3 is a transverse sectional view, still further enlarged, taken substantially on line 3—3 of Fig. 2, the means for holding the head against rotation being adjusted into operative relationship to the head to keep the same stationary relative to the handle.

Fig. 4 is a fragmentary top plan view of a modified form, the dotted lines showing the position of the parts when the head is to be held stationary.

Fig. 5 is a fragmentary side elevational view of said modified form, as seen from the left of Fig. 4.

Fig. 6 is a view similar to Fig. 4 showing another modification.

Fig. 7 is a greatly enlarged, fragmentary longitudinal sectional view through the applicator head, with the means for holding the head against rotation being adjusted into engagement with said head.

Fig. 8 is a perspective view of a head-engaging sleeve used in the form of Figs. 6 and 7, per se.

The reference numeral 10 has been applied to a handle, which can be of any desired length, said handle being secured at one end to a ferrule 12. Fixedly secured to the ferrule 12 are the inner ends of yoke arms 14, said yoke arms diverging in a direction away from the ferrule, and being formed at their free ends with inwardly turned, coaxially aligned fingers 16 loosely engageable within the opposite ends of the axial bore 18 of a core 20 of an applicator head. Circumposed about the core, and extending the full length of said core, is a cover or bonnet 22 formed of lamb's wool or other material found suitable for applying wax or other conditioning compounds to a floor surface.

Normally, the head constituted by the core 20 and cover 22 is freely rotatable upon the yoke, and under these conditions, a floor wax can be uniformly distributed over the surface to be coated.

However, the invention includes means for holding the head against rotation if desired, said means comprising S-shaped hooks 24 engaged over the respective yoke arms 14, and slidable along said yoke arms toward and away from the bonnet 22. Hooks 24 are connected to the opposite ends of a spring 26, which spring is held under tension so as to hold the hooks frictionally engaged with the yoke arms in selected positions to which the hooks are adjusted along said yoke arms.

When the head is to be freely rotatable, the spring and hooks are adjusted to the full line position of adjustment shown in Fig. 2. If, however, the head is to be held against rotation, the hooks and spring are shifted to the dotted line position of Fig. 2, into engagement with the bonnet 22. In this position of the parts, the spring will be engaged over its full length with the bonnet, from end to end of the bonnet. The spring will, in this connection, force inwardly the soft material of the bonnet (see Fig. 3). As a result, a longitudinal indentation will be formed in the outer surface of the bonnet, in which the spring will engage, and the applicator head will be held against rotation relative to the handle and yoke. The floor mop can now be used as one having a stationary head, this being particularly desirable when the wax applicator is to be used for rubbing a floor wax to bring out a desired finish.

In Figs. 4 and 5 there is shown a modified form wherein the handle and yoke arms, and the core and bonnet, are unchanged from the first form. However, in this form of the invention the handle is equipped with a means for

shifting the spring **26** into and out of engagement with the applicator head, without the necessity of one's bending over or lifting the head. An elongated length of stout wire is formed medially between its ends into a loop **28** loosely engaged about the handle portion remote from the ferrule **12**. The portions of the wire extending from the loop **28** are axially twisted upon one another as at **30**, extending along the handle **10** for substantially the full length of the handle. At a suitable distance from the ferrule **12**, one of the twisted portions of the wire is extended outwardly as at **32** to provide a yoke element, which yoke element is provided, at its free end, with a series of closed convolutions **34** loosely engaged about one of the yoke arms **14** and slidable along said yoke arm. The convolutions **34** terminate in a hook **36** to which the spring **26** is attached at one end of the spring. The other portion of the wire is loosely coiled about the handle **10**, in spaced relation to the ferrule **12**, to provide a plurality of loops or convolutions **38**, said convolutions **38** merging into a second yoke element **40** extending outwardly from the handle **10** in a direction opposite of that in which the yoke element **32** is extended. Yoke element **40**, at its outer end, is formed into a series of convolutions **42** loosely engaging the other yoke arm **14**, the convolutions **42** merging into a hook **44** to which is attached the other end of the spring **26**.

By reason of this arrangement, one can grasp the loop **28**, and shift said loop in the direction of the applicator head, as a result of which the length of wire, and the spring **26**, will be shifted from the full to the dotted line positions shown in Fig. 4. The spring **26** will now be in engagement with the bonnet **22**, in the same manner as the spring **26** in the first form of the invention. The spring **26** can be shifted away from the applicator head with similar ease.

In Figs. 6–8, there is illustrated another modified form, wherein the spring **26** is connected at its ends to sleeves **46**. Sleeves **46** are each formed from a small piece of sheet metal material, shaped to provide a cylindrical portion loosely slidable upon the respective yoke arms **14**. The cylindrical portion of each sleeve **46** merges into a triangular wing **48**, said wing being of right triangular shape and extending longitudinally of the cylindrical portion for the full length of said cylindrical portion. At the wide end of the triangular wing **48**, an aperture **50** is formed, to which the adjacent end of the spring **26** is secured. The triangular wing **48** has an outer longitudinal edge disposed obliquely to the axis of the sleeve, and as a result, when the sleeves and spring are shifted inwardly into engagement with the bonnet **22**, said obliquely disposed longitudinal edge of each sleeve will be forced into the end surface of the bonnet **22**, to cooperate with the spring **26** in holding the applicator head against rotation. In other words, the spring **26** will form a longitudinal indentation **52** in the outer surface of the bonnet **22** (see Fig. 7), said indentation **52** merging at its ends into end indentations **54** formed by the triangular wings **48** of the sleeves. A very effective means for holding the head against rotation is thus provided, which means can be readily adjusted into or out of engagement with the applicator head, as desired.

In all forms of the invention, the applicator head is fully removable for replacement or other purposes. Further, it may be hollow to provide a container for liquid materials. Further, it may be made with or covered by a sponge for waxing or mopping, with a wringer attached or detached.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member to embrace the head between them, said means being slidably mounted upon the yoke arms, said means including a spring extending between the yoke arms and adapted to form an indentation in said surface to engage the head against rotation.

2. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means being slidably mounted upon the yoke arms, said means including a spring extending between the yoke arms and adapted to form an indentation in said surface to engage the head against rotation, said means further including S-shaped hooks connected to the ends of the springs and sliding upon the respective yoke arms, said spring being held under tension to hold the hooks in frictional engagement with the yoke arms in selected positions to which the hooks are slidably moved.

3. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means including an elongated handle element slidably mounted on the handle, yoke elements diverging from said handle element and slidably mounted on the yoke arms, and a spring connected between said yoke elements and adapted to form an indentation in the head to engage the same against rotatable movement.

4. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means including an elongated handle element slidably mounted on the handle, yoke elements diverging from said handle element and slidably mounted on the yoke arms, and a spring connected between said yoke elements and adapted to form an indentation in the head to engage the same against rotatable movement, said handle element and yoke elements being formed from a single length of wire material.

5. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means including an elongated handle element slidably mounted on the handle, yoke elements diverging from said handle element and slidably mounted on the yoke arms, and a spring connected between said yoke elements and adapted to form an indentation in the head to en-

gage the same against rotatable movement, said handle element and yoke elements being formed from a single length of wire material, said length being formed medially between its ends with a loop circumposed about and slidable upon the handle.

6. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means including an elongated handle element slidably mounted on the handle, yoke elements diverging from said handle element and slidably mounted on the yoke arms, and a spring connected between said yoke elements and adapted to form an indentation in the head to engage the same against rotatable movement, said handle element and yoke elements being formed from a single length of wire material, said length being formed medially between its ends with a loop circumposed about and slidable upon the handle, the wire material extending from said loop longitudinally of the handle to the point of divergence of the yoke elements, one of the end portions of the length of wire material being formed into a second loop circumposed about and slidable upon the handle.

7. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means including an elongated handle element slidably mounted on the handle, yoke elements diverging from said handle element and slidably mounted on the yoke arms, and a spring connected between said yoke elements and adapted to form an indentation in the head to engage the same against rotatable movement, said handle element and yoke elements being formed from a single length of wire material, said length being formed medially between its ends with a loop circumposed about and slidable upon the handle, the wire material extending from said loop longitudinally of the handle to the point of divergence of the yoke elements, one of the end portions of the length of wire material being formed into a second loop circumposed about and slidable upon the handle, said divergent yoke elements being integrally formed at their divergent ends with convolutions loosely slidable upon the respective yoke arms.

8. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said means comprising sleeves slidable upon the yoke, and a spring connected between the sleeves and adapted to form an indentation in said relatively soft outer surface of the head to hold the head against rotatable movement.

9. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means comprising sleeves loosely slidable upon the respective yoke arms, each sleeve being integrally formed with a triangular wing, said wings facing inwardly of the yoke toward one another, said means further including a spring connected to and between the respective wings, said spring being adapted to form a longitudinal indentation in said outer surface of the head, and said wings being adapted to form end indentations in said head to cooperate with the spring in holding the head against rotatable movement.

10. A wax applicator comprising a handle, a yoke thereon, a cylindrical head rotatably mounted upon the yoke and having a relatively soft outer surface, and means shiftable toward the head and engageable in said outer surface to releasably hold the head against rotation, said handle being formed as an elongated member, the yoke comprising yoke arms diverging from said member and embracing the head between them, said means comprising sleeves loosely slidable upon the respective yoke arms, each sleeve being integrally formed with a triangular wing, said wings facing inwardly of the yoke toward one another, said means further including a spring connected to and between the respective wings, said spring being adapted to form a longitudinal indentation in said outer surface of the head, and said wings being adapted to form end indentations in said head to cooperate with the spring in holding the head against rotatable movement, each of said sleeves being integrally formed from a single piece of sheet metal material shaped to include a cylindrical portion circumposed about the associated yoke arm, and a wing extending the length of said cylindrical portion.

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