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PATENT SPECIFICATION



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COMPLETE SPECIFICATION

Improvements in or relating to Mechanical Lighters

I, OLAV ESKIL JORGENSEN, a Citizen of the United States of America, of 1, Eastfield Road, Benton, Newcastle-on-Tyne, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to mechanical lighters. In mechanical lighters as at present in use it is difficult to insert the usual pliable wick in position owing to lack of stiffness of the wick and the result is that the wick is unable to penetrate sufficiently into the cotton wool in the lighter container and consequently the wick does not absorb sufficient petrol. When the usual pliable wick is inserted into the mechanical lighter the wick usually curls up on top of the cotton filling and is therefore not in proper contact with the petrol-containing cotton-filling.

The present invention has for its object to provide an improved form of wick for a mechanical lighter as well as means for inserting the wick into position in the lighter.

According to the present invention a solid or tubular wick for use in a mechanical lighter is provided wherein one end of the wick is adapted to act as a resistance and/or a support for means which is provided to insert the wick into operative position the said means being removable after insertion of the wick. The wick although pliable in each form is preferably of tubular form and consists of woven or knitted fabric such as is usually employed in the manufacture of wicks one end of the wick being closed or tightened on itself. The closed end of the wick may be formed during the weaving or knitting operation or a sufficiently closed end may be provided by winding a piece of cotton thread or fine wire round one end of the tubular wick. Alternatively one end of the tubular wick may be closed by a tag of metal or other suitable material squeezed on to the said end of the tubular wick. In order to facilitate insertion of the wick into position in the lighter an inserting pin having a looped outer end or a stiff sleeve may be provided the said pin

and sleeve being conveniently made of metal such as steel or other stiff metal or material. The closed end of the tubular wick or the closure member thereon thus forms a resistance for the inserting pin or sleeve and permits of the wick being pushed into the cotton filling in the lighter instead of the wick curling up on top of the cotton filling as frequently occurs with pliable wicks as at present in use in mechanical lighters.

In a modified form a solid and pliable wick may be provided at one end with a metal or other suitable tag which may form a support for a sleeve of metal or other suitable material which surrounds the wick for the whole or a part of its length and which provides the necessary stiffness for the solid and pliable wick to enable the latter to be inserted in position in the lighter the said sleeve being subsequently withdrawn leaving the solid wick in position in the lighter. In this latter arrangement the wick may be tubular and used with the sleeve and the inserting pin. In order to facilitate removal of the sleeve the latter may be provided at its outer end with an outwardly turned part or with outwardly turned projections or otherwise formed to provide a grip for the fingers to enable the sleeve to be readily removed or withdrawn from the lighter leaving the wick in position therein.

In order that the invention may be clearly understood reference is made to the accompanying drawing which shows diagrammatically and by way of example constructions of wicks in accordance with the present invention.

Figure 1 drawn to an enlarged scale is an elevation of a wick in accordance with the present invention and also shows means for inserting the wick in position in a lighter.

Figure 2 drawn to an enlarged scale is an elevation showing the wick of Figure 1 and the inserting pin separately.

Figure 3 drawn to an enlarged scale is an elevation of another form of wick in accordance with the present invention.

Figure 4 drawn to an enlarged scale is an elevation showing a wick in accordance with the present invention and modified

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means for inserting the wick into position in a lighter.

Figure 5 shows the application of the wick to a lighter the metallic pin for inserting the wick into position in the lighter being shown more particularly in Figure 2.

Referring to the drawing 1 is a wick which is pliable and preferably of tubular form and consists of woven or knitted fabric of the usual wick material. The wick is closed or sufficiently closed at one end on itself by winding a cotton thread or fine wire round the said end as shown in Figures 1 and 2 or as shown in Figure 3 by squeezing a metal tag 3 on to the end of the wick. The tag 3 may be of any suitable length and of any suitable material and forms a resistance and/or a support for an inserting pin 4 which is thin enough to enter into the tubular wick and long enough to project therebeyond and also to abut against the closed or sufficiently closed end of the tubular wick. Obviously other means than winding one end of the tubular wick with thread or wire or squeezing a tag such as 3 thereon may be employed to obtain a closed end. For example one end of the wick may be woven or knitted so that the said end is closed and the inserting pin 4 may be formed with a blunt outer end or with a ball shaped end engageable with the knitted closed end of the wick in order to prevent the inserting pin 4 from piercing the knitted or woven closed end of the wick. One end of the wick may be closed by impregnation or dipping in a suitable binding material which when set will offer a sufficient resistance to permit of the use of the inserting pin. The dipping or impregnating material may be of such a nature as to form a rigid closed end on the wick and when the latter is inserted in position in the lighter the petrol therein may render the said impregnating or dipping material soft and porous and thus facilitate absorption of the petrol by the closed end of the wick. Alternatively sufficient rigidity may be imparted to a pliable wick to permit of the insertion of the later into a lighter by weaving or knitting the usual wick fabric or other suitable fabric round a core of fine wire which may be of a stiff and flexible nature or of a resilient or springy form the said wire being subsequently withdrawable.

In such a construction of wick the latter as before is provided or formed with a resistance or support at one end in order to facilitate insertion of the wick into a lighter.

In the modified form of wick and inserting means shown in Figure 4 the tag 3 is of any suitable length and is formed or

shaped at its upper end 4 to support a sleeve 5 which surrounds the wick 1 either throughout its length or for any required or desired part thereof. The sleeve 5 may be outwardly turned at its upper end as at 6 or may be provided with projections or otherwise shaped or formed or have attachable thereto means to facilitate removal of the sleeve 5 from the wick 6 after the tag 3 the sleeve 5 and the wick 6 have been inserted into position in the lighter. Obviously the diameters of the tag the sleeve and the wick must be small enough to suit existing lighters as well as prospective mechanical lighters. When the wick is for use with a sleeve as in Figure 4 the said wick may be solid or tubular.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A solid or tubular wick for use in a mechanical lighter wherein one end of the wick is adapted to act as a resistance and/or a support for means which is provided to insert the wick into operative position the said means being removable after insertion of the wick.

2. A wick for use in a mechanical lighter wherein the wick is pliable and of tubular form and consists of woven or knitted fabric one end thereof being closed or tightened on itself.

3. A wick for use in a mechanical lighter wherein the said wick is preferably of circular tubular form and consists of woven or knitted fabric one end of which is closed on itself in the weaving or knitting operation or by means of a cotton or other thread or fine wire wound round the said end or by means of a metal tag squeezed on to the said end of the tubular wick.

4. A wick for use in a mechanical lighter and comprising a pliable and solid or tubular piece of fabric provided at one end with a metal tag which forms a resistance and/or a support for a metallic or other suitable sleeve to surround the wick in order to obtain the necessary stiffness of the wick and to facilitate insertion of the wick in position in the lighter the sleeve being subsequently withdrawn leaving the wick in the lighter and in efficient contact with the cotton filling in the lighter.

5. A wick for use in a mechanical lighter wherein the wick is of tubular form and consists of fabric and is provided with means at one end to form a resistance and/or a support for a stiff wire or sleeve inserted therein in order to enable the tubular wick to be inserted

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in position in the lighter.

5 6. A wick according to claim 4 wherein the inserting sleeve is provided at its upper end with means to facilitate removal of the said sleeve from the lighter when the tubular wick has been placed in position therein.

10 7. A tubular or solid pliable wick for mechanical lighters substantially as herebefore described in connection with the accompanying drawing.

15 8. Means for use in inserting a solid or tubular pliable wick into position in a mechanical lighter substantially as herebefore described in connection with the accompanying drawing.

20 9. A mechanical lighter having a solid or tubular pliable wick formed of the usual wick fabric and means for inserting the said wick into position in the lighter

the said means being subsequently removable therefrom substantially as herebefore described in connection with the accompanying drawing.

25 10. As a new article of manufacture a pliable tubular wick for a mechanical lighter the said wick being provided or formed at one end with a resistance or support and consisting of the usual wick fabric or other suitable fabric woven or 30 knitted round a removable core of fine wire of a stiff and flexible nature or of a resilient and springy nature.

Dated this 22nd day of March, 1934.

J. S. WITHERS & SPOONER,
Chartered Patent Agents,
Staple House, 51 & 52, Chancery Lane,
London,
Agents for the Applicant.

Fig. 1.

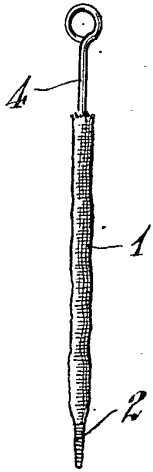


Fig. 2.

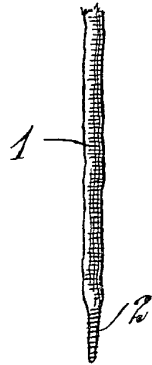


Fig. 3.



Fig. 4.

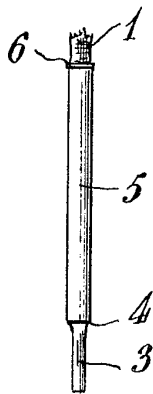
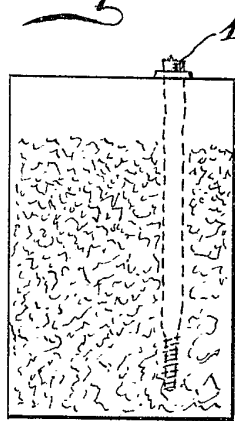


Fig. 5.



[This Drawing is a full-size reproduction of the Original.]