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M. FRACHEBOUD

2,578,998

FIRE LIGHTER

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Fig. 1

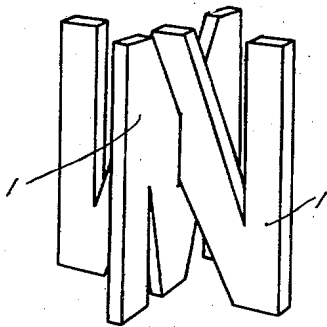


Fig. 2

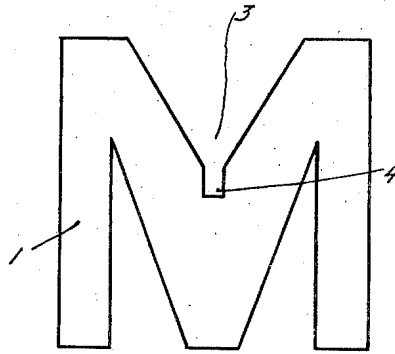


Fig. 5

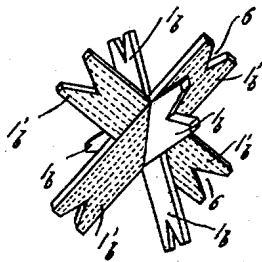


Fig. 3

Fig. 4

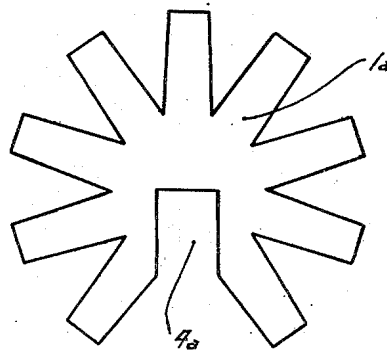
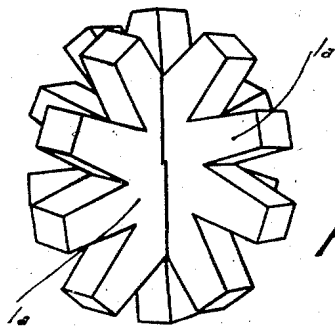
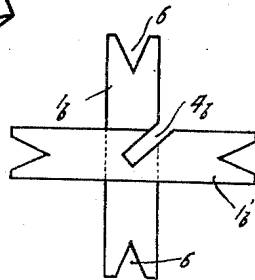


Fig. 6



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# UNITED STATES PATENT OFFICE

2,578,998

## FIRE LIGHTER

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5 Claims. (Cl. 44-38)

1

2

My invention relates to fire-lighters. One object of my invention is to provide a fire-lighter the bulk of which will be large in relation to the real bulk of the material of which it is composed.

A further object is to provide a fire-lighter of such a shape that it always happens to be laid in such a manner helpful to its burning, whichever way it is placed in a fire it is desired to light, without any special care.

A still further object of my invention is to provide a fire-lighter, which, for its sale on the market, may be reduced in bulk and brought down to a minimum size.

Another object of my invention is to provide a fire-lighter well adapted for mass production at low cost.

With these and other objects in view as will appear from the following description I have provided a fire-lighter the novel characteristic features of which will be now described hereafter and more fully pointed out in the claims, reference being had to the annexed drawings illustrating various embodiments of my invention and in which:

Fig. 1 is a view in perspective of a first embodiment.

Fig. 2 is a flat view of one of the component small plates.

Fig. 3 is a corresponding view of Fig. 1 of another embodiment.

Fig. 4 is a flat view of the corresponding component small plate.

Fig. 5 is a view in perspective of yet another embodiment, where each small plate is composed of several assembled members, and

Fig. 6 is a flat view of the corresponding small plate.

In the embodiment shown in Figs. 1 and 2, each small plate 1 is totally plane and has the general shape of an M with, at the central indentation point 3, a groove 4, whose width is equal to the thickness of the small plate. Two plates thus composed, tail into each other by their grooves 4, resulting in the fire-lighter of Fig. 1.

In Figs. 3 and 4, the fire-lighter is likewise composed, as in Figs. 1 and 2, by two small plates 1a, placed at an angle of 90° to one another, and tailed into each other by their grooves 4a, but the thickness of the small plate is greater, and each of them takes the shape of a star (Fig. 4).

In the embodiment shown in Figs. 5 and 6, each small plate is made up by a cross-piece with four arms formed by two similar members 1b and 1'b assembled together like a cross at mid-thickness. A tailing-in groove of two small plates on to each

other is cut out in one of the angles of the cross-piece. This groove is preferably sloped at an angle of 45°, so that the two cross-piece members are alike. Each small plate member has a general rectangular shape with indentation 6 in each of the small sides. It is evident that the manufacture of said small plates may be made with minimum losses of material, starting from sheets or plates by stamping them out in bands, cutting said bands, piling the small logs into packets and then indenting and grooving said packeted small logs.

The fire-lighter thus provided, appears in the shape of what might be termed "hedgehog," in the sense that its grooves bear branches situated in different planes and in different directions in the same plane. The bulk in which such a fire-lighter is registered is large in relation to the real bulk of the material of which it is composed, and it is the same for its total surface as well as the total length of its ribs, all particularities which aid its ignition and burning. Furthermore experience has proved that such a fire-lighter, by its very shape, always happens to be laid in such a manner helpful to its burning, whichever way it is placed in a fire it is desired to light, without any special care.

From another standpoint a further advantage of my fire-kindler it that the plates being removably interlocked together it may be brought down to a minimum size for transport and sale by placing the small plates side by side without interlocking them together, the plates interlocking being done by the user at the instant of use.

Lastly, the structure of my fire-lighter allows for a very easy and cheap mass production, whether by cutting the small plates from the solid or by directly moulding each plate to its final pattern by compressing in a press a powdery raw material, sawdust for instance, eventually admixed with a binder, preferably an inflammable one, for example resin, tar, etc.

To cut the small plates from the solid, a stick of wood may be started with, externally machined to the outline of the small plates and then cross-cut into sections; cardboard sheets or plates may also be started with, for instance by stamping them out or in any other manner according to the outline of each small plate. However, these two ways of proceeding cause a great loss of raw material, recoverable in the case of cardboard, but irreparable in the case of wood or compressed materials with wood fibre basis or of any other kind, and the further additional advantage of my fire-lighter as illustrated in Figs. 5 and 6

3

over those shown in Figs. 1 to 4 is to cut down this loss to a small one.

To facilitate its lighting and burning, my fire-lighter may be coated totally or partly, or impregnated with an easily burning matter such as a phosphorated paste, paraffin, etc.

Of course my invention is in no way limited to the details of embodiment shown and described; without going outside the scope of the invention, the small plates may be given many other outlines. Further the said fire-lighter may be made of a noncombustible material serving as a carrier for an easily burning matter.

It is particularly advantageous to use resinous sawdust.

What I claim is:

1. In a fire-kindler comprising at least two cross flat plates of a combustible material cut out to be each provided with a plurality of legs and with a notch and interlocked together by engagement of each plate in the notch of the other, the feature that each plate has a shape comprising a central portion of reduced area from which said legs are diverging all around and said notch is provided in said central portion so that said kindler may rest and burn with substantially equal efficiency in any position it may be given.

2. A fire-kindler as in claim 1, wherein further said interlocking engagement of the plates is a removable one, so that said plates may be put together side by side for transport and sale.

3. A fire kindler as in claim 1 wherein each of said plates is composed of two elongated narrow

4

and thin flat plane pieces removably fitted together at right angles and mid-thickness in their middle part, thereby giving said plate a cruciform shape.

4. A fire kindler as in claim 1, wherein each of said plates is composed of two elongated flat pieces each recessed at mid-thickness in its middle part to provide for mutual fitting of said pieces at right angles and mid-thickness, whereby a cruciform shape is given to said plate, each of said flat pieces being notched at 45° to the length of said piece in an angle of said recess.

5. A fire-kindler comprising at least two cross flat plates of a combustible material cut out to be each provided with a plurality of legs and with a notch and disengageably interlocked together at right angles to each other by engagement of each plate in the notch of the other, in which each plate has a shape comprising a central portion of reduced area from which said legs are radially diverging all around and said notch is provided in said central portion so that said kindler may rest and burn with substantially equal efficiency in any position it may be given.

MARCEL FRACHEBOUD.

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The following references are of record in the file of this patent:

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Number	Name	Date
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