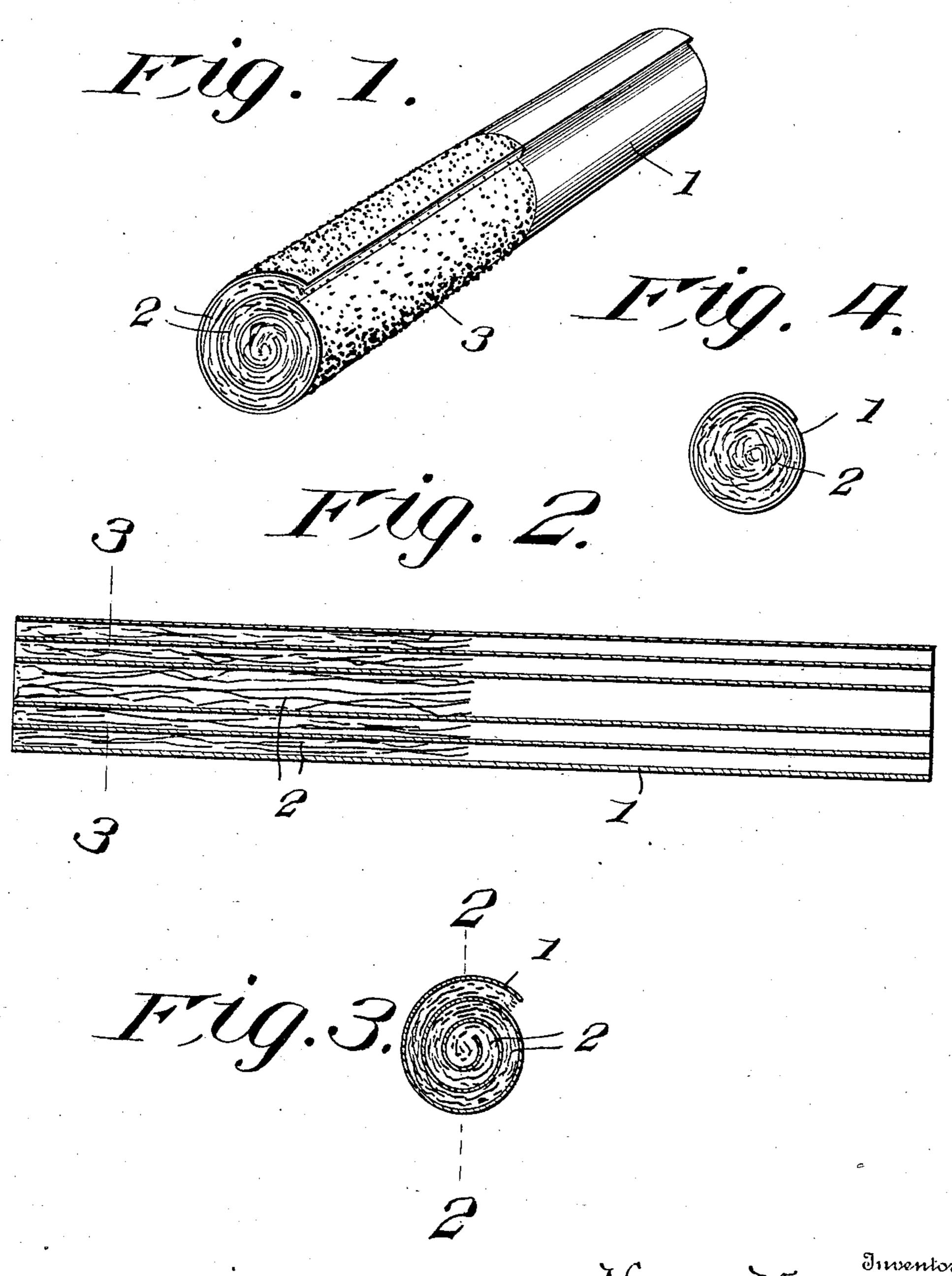
No. 864,021.

PATENTED AUG. 20, 1907.

H. MUETZEL.
FIRE LIGHTING APPLIANCE.
APPLICATION FILED AUG. 20, 1906.



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## UNITED STATES PATENT OFFICE.

HERMAN MUETZEL, OF FOND DU LAC, WISCONSIN.

## FIRE-LIGHTING APPLIANCE.

No. 864,021.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed August 20, 1906. Serial No. 331,362.

To all whom it may concern:

Be it known that I, Herman Muetzel, a citizen of the United States, residing at Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Fire-Lighting Appliances; 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.

My invention relates to new and useful improvements in igniters, and more particularly to that class adapted to be used in kindling fires, and my object is to provide a device of this class whereby combustion may be quickly and readily attained and avoiding the necessity of the use of shavings or kerosene, and other dangerous explosives.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application: Figure 1 is a perspective view of my improved device complete and ready for use. Fig. 2 is a central longitudinal sectional view thereof as seen from line 2—2 of Fig. 3, Fig. 3 is a transverse sectional view as seen from line 3—3, Fig. 2, and Fig. 4 is an end elevation of a slightly modified form of device.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the body of my improved device, which is preferably constructed from a thin piece of soft wood or veneer, the wood being so thin that it will readily curl.

Disposed between each fold of the curled body is a thin layer of excelsior or the like 2, which extends substantially half the length of the body. After the excelsior or similar material has been spread upon the thin layer of wood, the same is then rolled upon itself to form a compact bundle or stick, and after the same is properly rolled together, one end thereof is dipped a sufficient depth into a mixture of pitch and kerosene, the quantity of kerosene being sufficient to merely thin the pitch and give the same a fluid consistency, so that it will readily adhere to the parts of the body. After the device has thus been dipped into the mixture of

pitch and kerosene, and while the mixture is still soft, 45 the end of the body is then sprinkled with sawdust or a similar substance as at 3 and then placed in position to dry. After the pitch upon the body has become thoroughly hardened, the product is finished and ready to be placed upon the market.

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The half or portion of the igniter not filled with the excelsior and not dipped forms a convenient handle by which it may be handled, and not being so combustible as the dipped portion there is no danger of burning the hands, yet, by reason of the spaces between the coils of 55 the veneer body 1, when the flames reach that portion, it will be consumed very rapidly.

In Fig. 4 of the drawing the thin sheet of wood forming the body is directed around a quantity of the excelsior 2 instead of having the same placed in a layer 60 over the surface of the wood and then rolled together, the ends of the strip of wood in this instance overlapping each other so that they will readily hold the excelsior in place, and after the same has been dipped in the mixture of kerosene and pitch, it will be seen that 65 the ends will readily adhere together and form a compact body.

It will now be seen that I have provided an igniter which may be very cheaply and economically constructed, and one that will be very efficient in operation. 70

It will further be seen that the article after completion can be readily placed upon the market and sold as a commodity.

What I claim is:

As an improved article of manufacture, the herein described igniter, the same composed of an elongated body of wood or like fiber rolled into elongated cylindrical form, a layer of excelsior disposed between successive folds of said body, the excelsior extending for a portion only of the length of said body leaving spaces between the coils thereof, the portion containing the excelsior being provided with a coating of pitch and kerosene and sawdust, thus providing a highly combustible portion at one end and a less combustible cellular handle portion at the other end.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HERMAN MUETZEL.

Witnesses:
O. H. ECKE,
LEO F. DANA.