

(No Model.)

N. JOHANSON.
CHEMICAL FIRE KINDLER.

No. 369,184.

Patented Aug. 30, 1887.

Fig. 1.

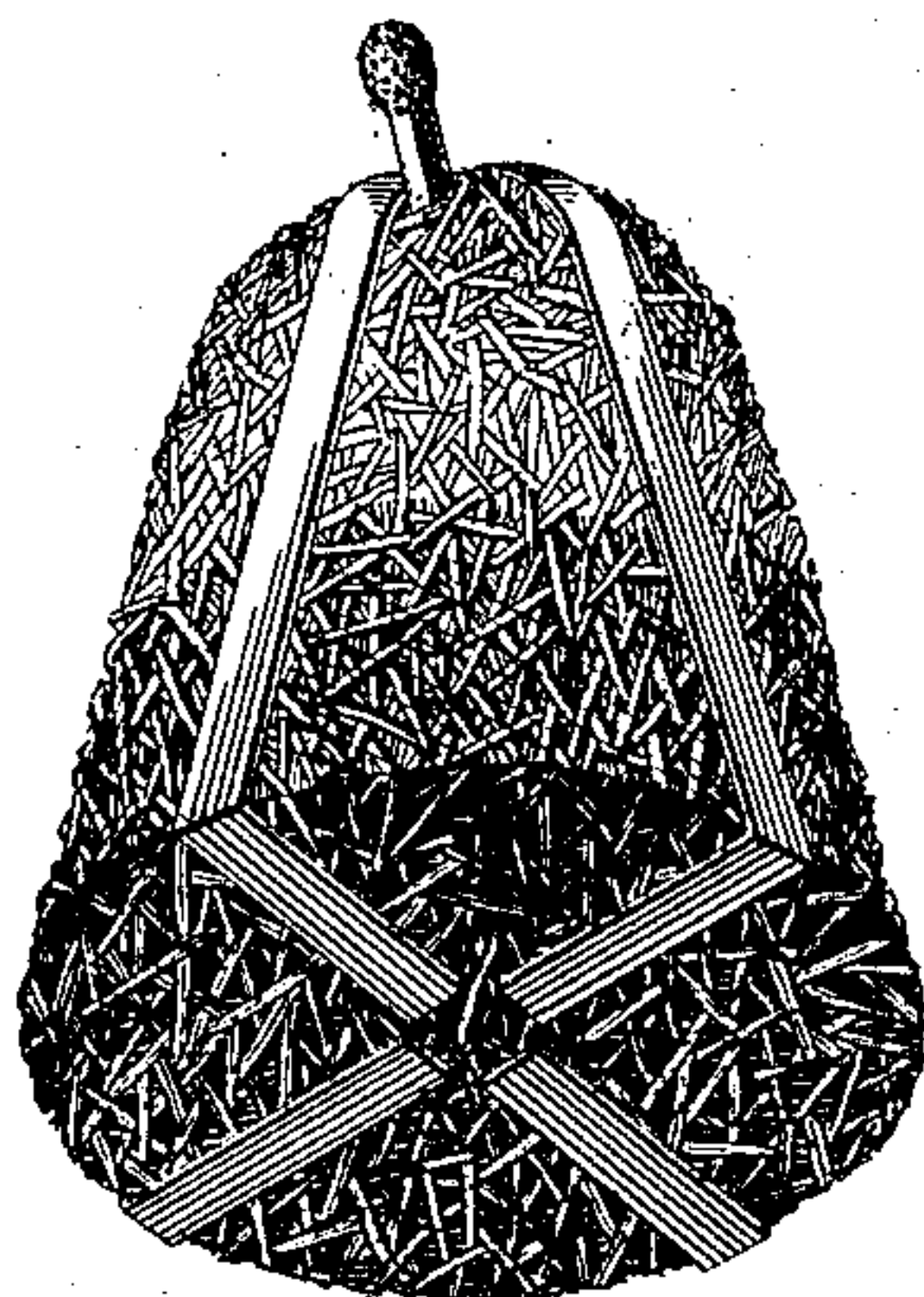
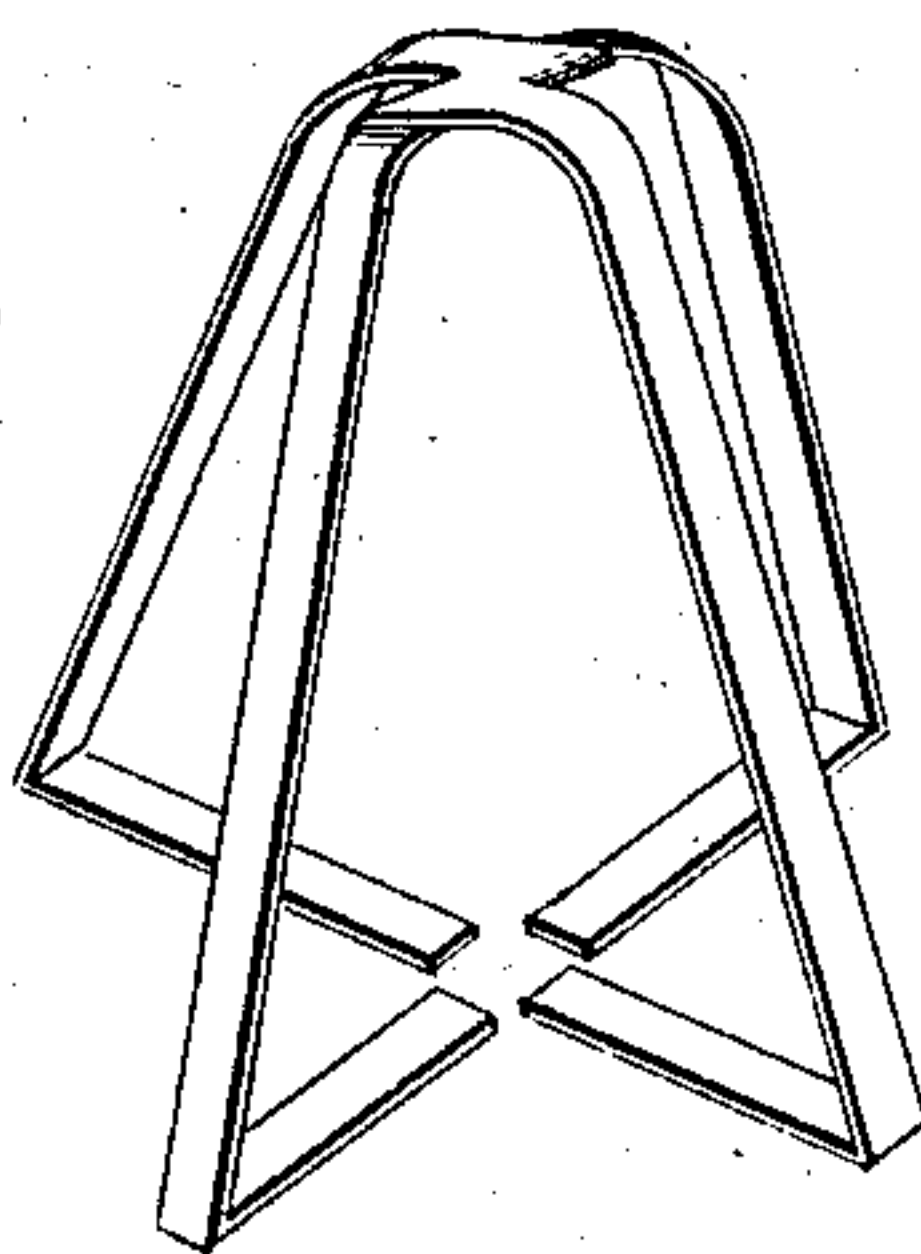


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

NILS JOHANSON, OF MUSKEGON, MICHIGAN.

CHEMICAL FIRE-KINDLER.

SPECIFICATION forming part of Letters Patent No. 369,184, dated August 30, 1887.

Application filed February 27, 1886. Serial No. 193,423. (No model.)

To all whom it may concern:

Be it known that I, NILS JOHANSON, a citizen of Denmark, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented an Improved Chemical Fire-Kindler, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the kindler, and Fig. 2 a perspective view of the cage or bands which hold the same in shape.

The object of the invention is to produce a powerful kindler that shall be of small dimensions and be economical, safe, and convenient for use. I attain this in the following manner:

I take a small quantity of what in upholstery is called "excelsior," and press it into a mold prepared for the purpose, which gives it a conical form, as shown in the accompanying drawings, Fig. 1. To prevent the excelsior from

falling apart, I inclose it in a band, Fig. 2, made of zinc, which melts when the kindler burns, leaving no perceptible traces, as would be the case if tied up with steel wire or similar material. I thereupon immerse the pointed or apex half of the kindler into liquid paraffine and then the base half into resin. A pointed match is thrust into the kindler at the apex, as shown in the drawings, Fig. 1, and it is ready for use.

What I now claim, and desire to secure by Letters Patent of the United States, is—

A fire-kindler composed of a package of excelsior steeped in a hydrocarbon and combined with a binder of zinc, substantially as and for the purpose described.

NILS JOHANSON.

Witnesses:

JOHAN G. ANELENSON,
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