

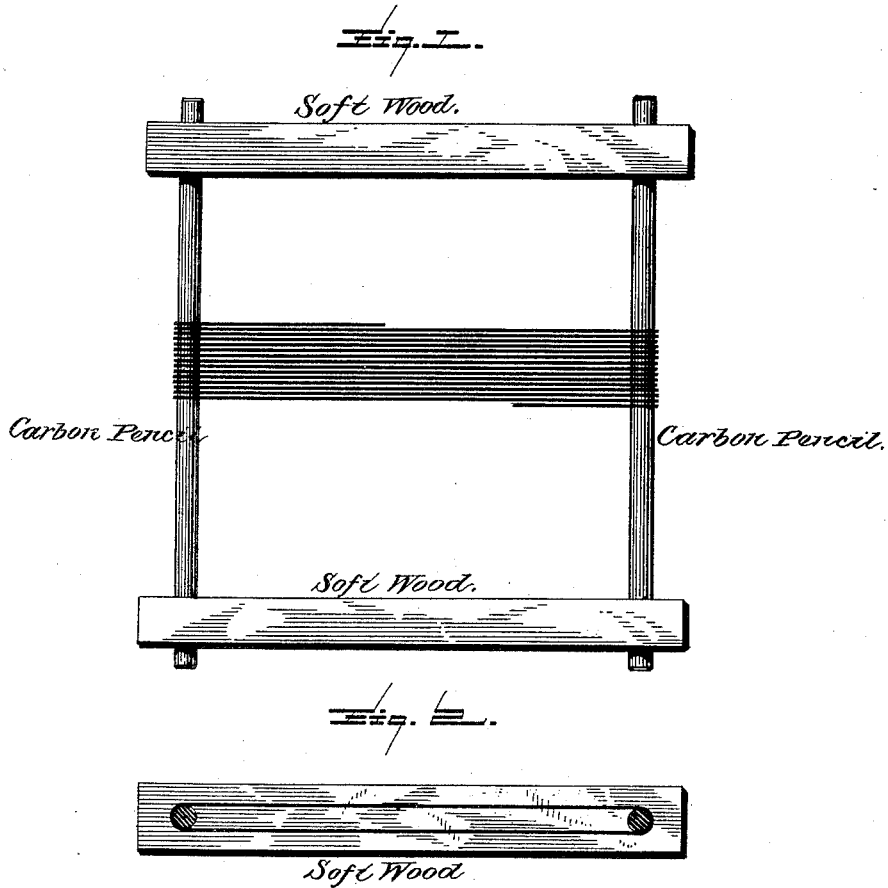
(No Model.)

V. M. HOBBY.

MANUFACTURE OF FILAMENTS FOR INCANDESCENT LAMPS.

No. 435,660.

Patented Sept. 2, 1890.



Witnesses

L. C. Mills.

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VINCENT M. HOBBY, OF NEW YORK, N. Y.

MANUFACTURE OF FILAMENTS FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 435,660, dated September 2, 1890.

Application filed October 26, 1889. Serial No. 328,338. (No model.)

To all whom it may concern:

Be it known that I, VINCENT M. HOBBY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Composition of Matter to be Used for Carbonizing a Filament for Electric Incandescent Lamps, of which the following is a specification.

My composition consists of the following ingredients, combined in the proportions stated, viz: carbon, one ounce; sugar, one ounce; liquid mucilage, one ounce; liquid india-ink, one ounce. The ingredients are to be thoroughly mingled by agitation, so as to form a paste. When cold, it is to be cut with a knife or some other sharp instrument. Two crucibles—one inside of the other with a space of about two inches between them—are to be used to fumigate the above composition. The space between the two crucibles is to be filled with either graphite, lamp-black, or ground charcoal. Then take a lump of the above paste and place it in the bottom of the inner crucible. When the crucibles are put in a fire, the paste will burn and emit a fume which will settle around the filament while carbonizing it. No further treatment of the filament is required before or after such carbonization. Better results seem to be obtained when the filaments are made of Irish flax or Mexican grass, as they appear to absorb the fume of the said paste more than filaments of other materials; but I do not limit my invention to its use with such filaments only. I do not wind the said flax or grass around a carbon block, as generally has been done with carbonizing materials; but instead thereof I use two carbon pencils stuck together with two pieces of soft wood to avoid shrinkage, the wood only contracting to a certain extent, preventing the said flax or grass from shrinking less than the dimensions of the wood.

By the above composition and mode of treat-

ment of the materials aforesaid a filament for electric incandescent lamps can be made of higher efficiency than any other now known to me, and such filaments can be manufactured at a trifling cost in any form or shape and of any voltage or candle-power.

In the drawings I have shown my improved filament-carbonizing form, Figure 1 being a face view thereof, and Fig. 2 a transverse section.

A filament formed by my process is more flexible than those heretofore produced, and can be readily distinguished by the readiness with which it may be wound or bent into varying shapes.

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

1. The herein-described composition or paste, consisting of carbon, sugar, and mucilage, substantially in the proportions specified.

2. The herein-described composition or paste, consisting of carbon, sugar, mucilage, and india-ink, in substantially the proportions specified.

3. An improved filament-carbonizing form consisting of two separate carbon pencils or sections and separate connecting means, which prevents shrinkage of the filament to an extent any less than the contraction of the connecting means, substantially as described.

4. An improved filament-carbonizing form consisting of two carbon pencils or sections connected by soft wood, which prevents shrinkage of the filament to an extent any less than the contraction of the wood, substantially as specified.

In testimony whereof I have affixed my signature in presence of two witnesses.

VINCENT M. HOBBY.

Witnesses:

OSCAR E. LANGER,
L. S. GOEBEL.