

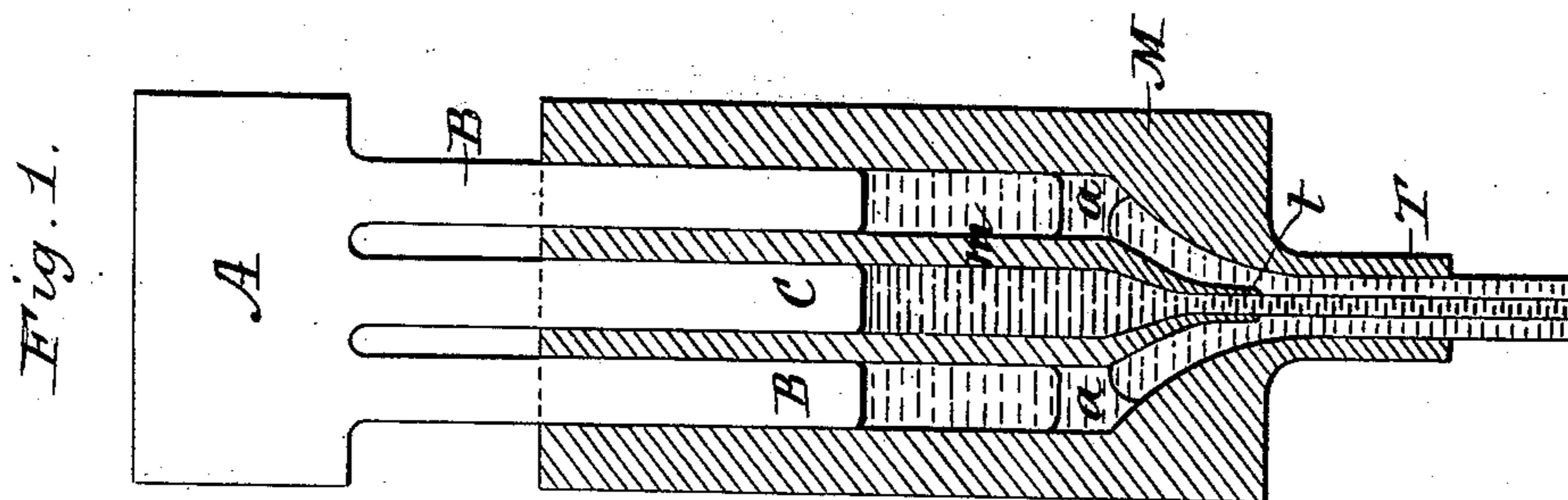
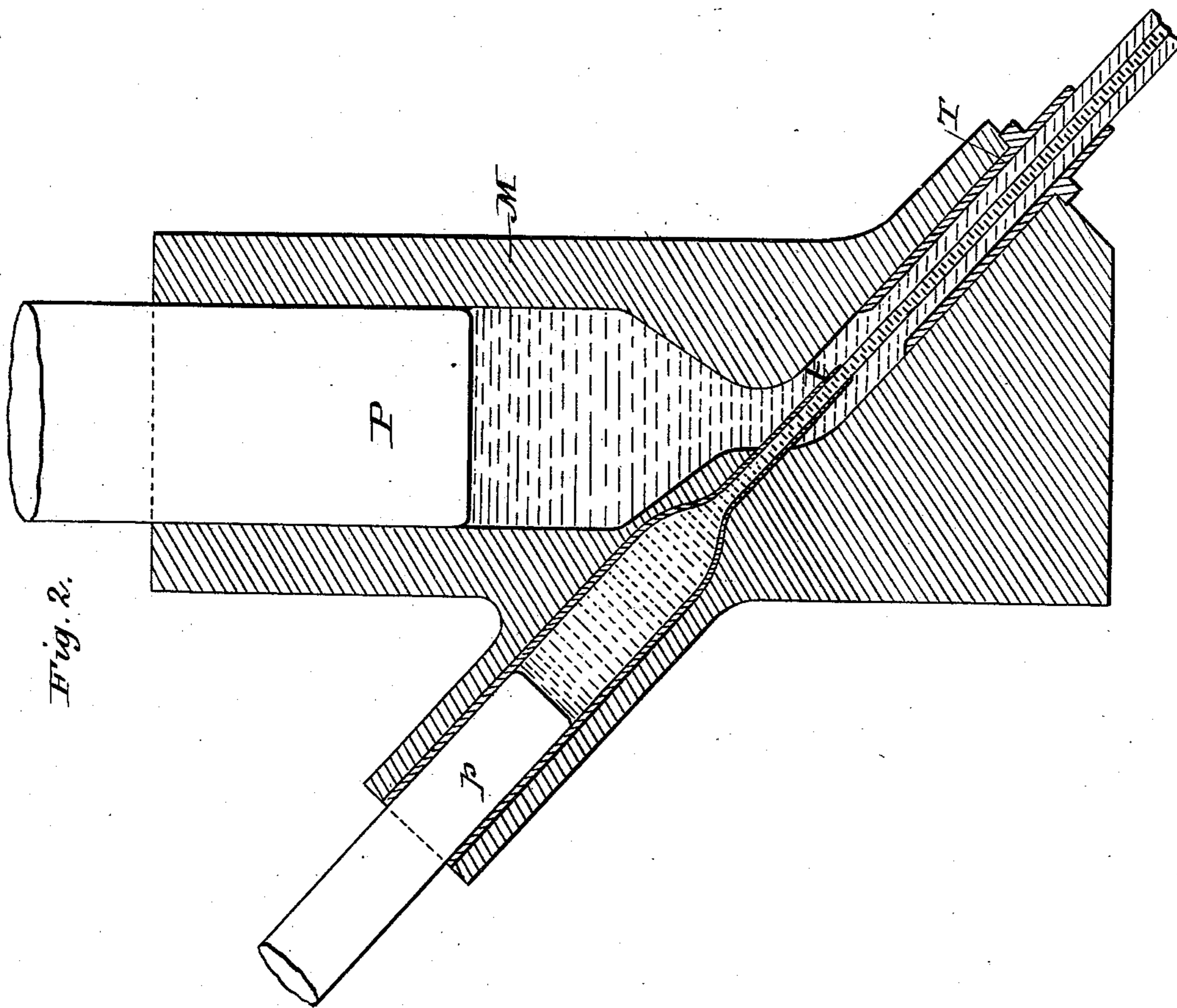
(No Model.)

J. B. J. MIGNON.

CANDLE FOR ELECTRIC LIGHTING.

No. 253,822.

Patented Feb. 14, 1882.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JEAN BAPTISTE JAVA MIGNON, OF PARIS, FRANCE.

## CANDLE FOR ELECTRIC LIGHTING.

SPECIFICATION forming part of Letters Patent No. 253,822, dated February 14, 1882.

Application filed September 17, 1881. (No model.) Patented in France January 3, 1881.

*To all whom it may concern:*

Be it known that I, JEAN BAPTISTE JAVA MIGNON, a citizen of the Republic of France, and residing in Paris, France, have invented certain Improvements in Candles for Electric Lighting, (for which I have obtained a French patent, January 3, 1881,) of which the following is a specification.

This invention relates to improvements in the manufacture and mode of employing carbons or candles for electric lamps, as hereinafter described with reference to the accompanying drawings.

Figure 1 of the accompanying drawings is a vertical section of an apparatus employed according to this invention, and Fig. 2 is a vertical section of a modification of the same apparatus.

In carrying out the said invention carbons for electric lamps are constructed with a core or wick, as hereinafter described. It has been observed that by making the carbons hollow and filling them up either with another and smaller carbon of different composition, or with a substance differing from that of which the carbon proper is composed, introduced by any suitable means, a more steady and regular light is obtained than that produced by the employment of solid carbons. Carbons of this description are known in practice by the general term of carbons with wicks or cores. It has been found by experience that the same results and the same advantages are obtained with solid carbons composed of pasty or plastic materials of different descriptions, molded by being forced simultaneously through a suitably-arranged molding-orifice, and subsequently submitted to the operation usually employed to impart the requisite quantities of homogeneity and density, and to insure the brilliancy of the light emitted.

The improved apparatus employed in the manufacture of carbons according to this invention, and illustrated in Fig. 1 of the accompanying drawings, consists of an internal mold, *m*, supported in position in the interior of a larger mold, *M*, by means of suitable webs, *a*. An annular or hollow ram, *B*, attached to a block or head, *A*, works in the annular space between the external surface of the inner mold and the internal surface of the outer mold, and a solid ram, *C*, also attached to the block *A*,

works in the interior of the inner mold. The inner mold is constructed at its lower extremity, where it terminates within the outer mold, with a small central tube or orifice, *t*, corresponding to the diameter of the core. The outer mold is also constructed at its lower extremity, and terminates in a contracted tube or orifice, *T*, concentric with but extending lower than the orifice of the inner mold, and corresponding to the external diameter of the carbon. The capacity of the molds is so calculated that the quantity of materials expelled through the respective molding-orifices corresponds to the size of the carbons which it is desired to produce. On the descent of the rams the material issuing from the contracted orifices of the inner mold is surrounded by the material expelled at the same time from the larger and outer mold, and which, in passing through the contracted orifice of the latter, is compressed around the material issuing from the inner mold, and adheres thereto by the time the carbon is compressed to its final dimensions—that is to say, shortly before it issues from the tube *T* of the outer mold. A similar result may be obtained by employing the apparatus illustrated in Fig. 2 and next hereinafter described. According to this modification the apparatus is composed of a mold, *M*, provided with a ram, *P*, and terminating in a contracted passage or tube, *T*, at its lower extremity. A chamber provided with a ram, *p*, is arranged at the side of this mold, and also terminates in a contracted passage communicating with a tube, *t*, so arranged as to discharge its contents in the center of the contracted passage or tube *T*. The material employed for the outer part of the carbon is placed in the mold under the ram *P*, and the material for forming the inner part or core is placed under the ram *p* in the chamber at the side. On the descent of the rams the materials are expelled from the chamber and from the mold through the passages *t* and *T*, respectively, under the same conditions as in the apparatus illustrated in Fig. 1.

By arranging the chamber containing the materials for the core at the side, as in the apparatus secondly hereinbefore described, and illustrated in Fig. 2, the advantage is obtained of enabling two independent rams to be employed, so as to allow of the relative propor-

tions of the material expelled from the mold and from the chamber to be adjusted by regulating the relative speed of the said rams.

I claim as my invention—

- 5 1. The improvement in the manufacture of carbons or electrodes for electric lights, consisting in pressing out from plastic material a double carbon, both core and outer coating at one operation, substantially as described.
- 10 2. The apparatus described for making double carbons at one operation, comprising the inner and outer molds, with their rams and contracted tubes or orifices, the tube or orifice of

the outer mold being concentric with but lower than the orifice of the inner mold, and being 15 contracted below said orifice of the inner mold, substantially as described.

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

JEAN BAPTISTE JAVA MIGNON.

Witnesses:

JOSEPH DELAGE,

ROBT. M. HOOPER,

*U. S. Consulate General.*