F. W. HUPPELSBERG.

Chenille.

No. 224,438. Patented Feb. 10, 1880.

Fig. 1.

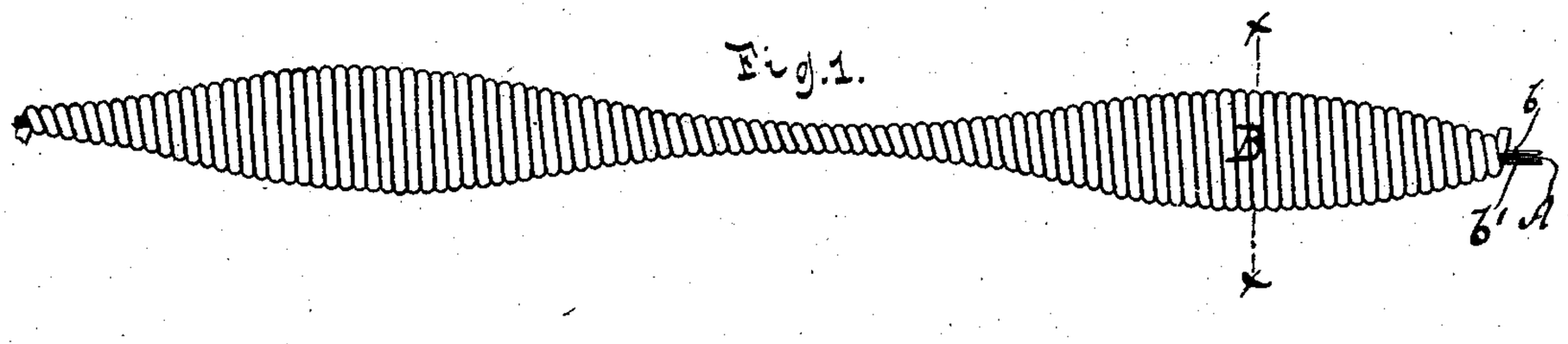


Fig. 2.

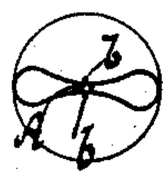


Fig. 3.

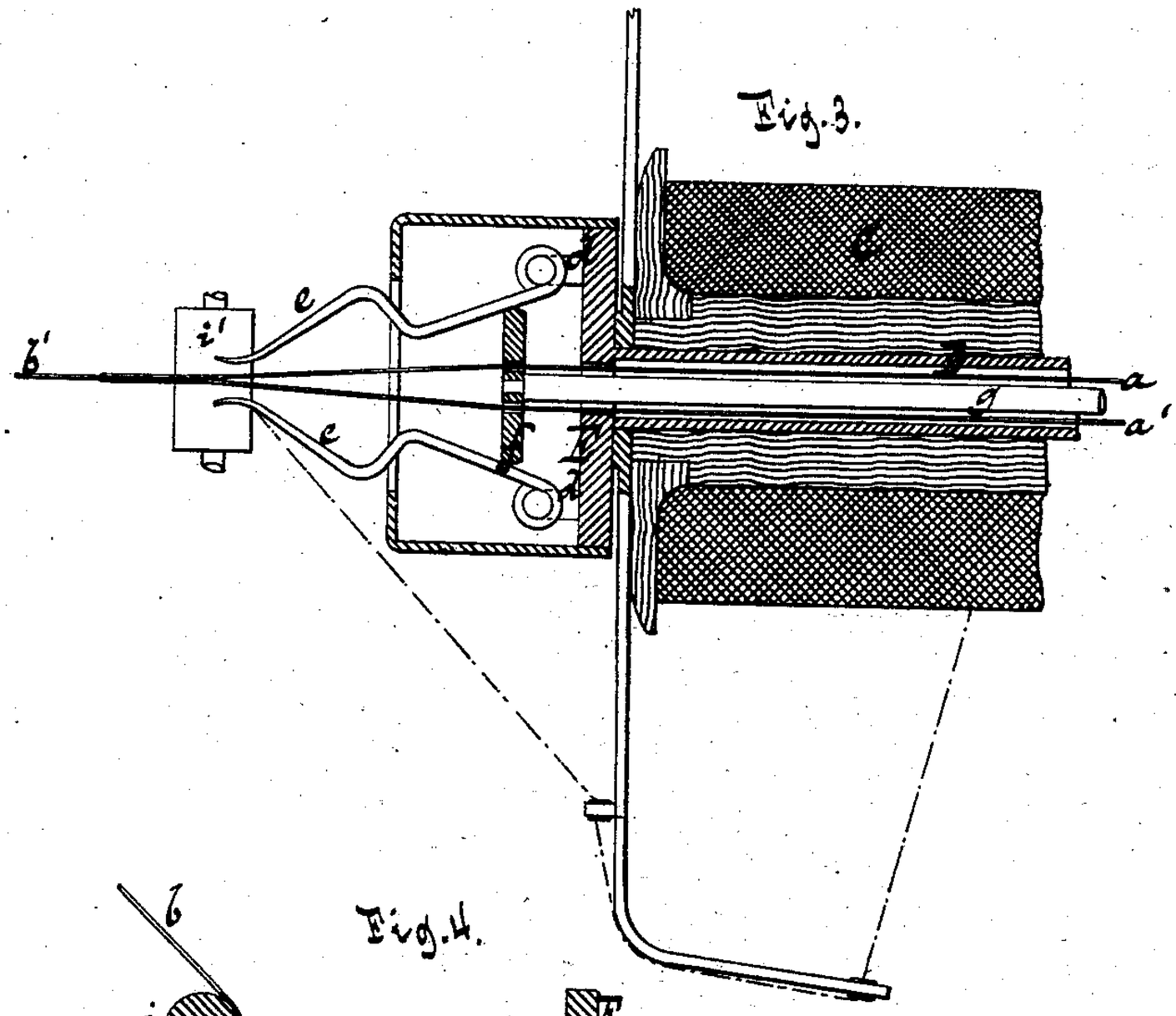
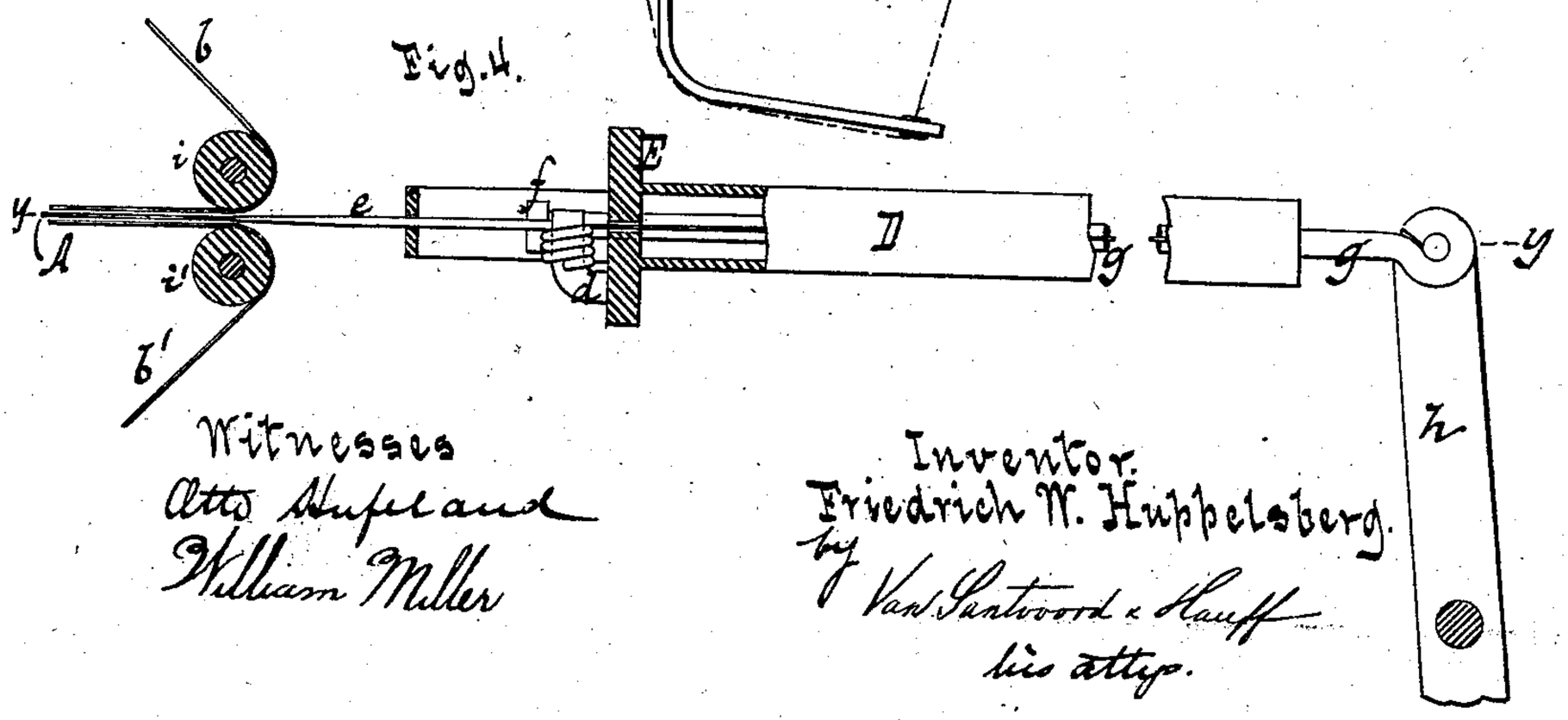


Fig. 4.



Witnesses
Otto Hupfeld
William Miller

Inventor
Friedrich W. Huppelsberg.
by
Van Santvoord & Hauff
his attys.

UNITED STATES PATENT OFFICE.

FREDERICK W. HUPPELSBERG, OF BROOKLYN, NEW YORK, ASSIGNOR TO STEINBORN & HUPPELSBERG, OF SAME PLACE.

CHENILLE.

SPECIFICATION forming part of Letters Patent No. 224,438, dated February 10, 1880.

Application filed November 7, 1879

To all whom it may concern:

Be it known that I, FREDERICK W. HUPPELSBERG, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Chenille, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side view of my chenille on an enlarged scale. Fig. 2 is a transverse section of the same in the plane *x x*, Fig. 1. Fig. 3 is a horizontal section of the mechanism which I use in carrying out my invention, the plane of section being indicated by the line *y y*, Fig. 4. Fig. 4 is a sectional side view of the same.

Similar letters indicate corresponding parts.

This invention relates to uncut chenille having sections of different thicknesses.

My chenille is composed of a straight core, A, of two threads of cotton or other equivalent material, a covering, B, of silk or other equivalent material, and two binding-threads, *b b'*, which serve to fasten and retain the covering B upon the straight core A. The covering B is laid on in the form of a spiral (see Fig. 1) the diameter of which increases and diminishes, so that my chenille, when finished, presents the appearance shown in Fig. 1, showing sections of small diameter alternating with other sections of larger diameter. This object is obtained by winding the covering-thread, before the same is secured upon the core A, around two fingers, the distance between which can be increased or diminished at pleasure.

In order to enable others skilled in the art to fully understand and carry out my invention, I have shown in the drawings the principal parts of the mechanism which I use in the manufacture of my chenille.

In these drawings, the letter C designates a spool which carries the covering-thread or silk, and which revolves loosely on a tubular stationary shaft, D. On this tube is fastened a platform, E, provided with lugs *d*, each of which supports a finger, *e*. (See Fig. 3.) The inner ends of these fingers are made in the form of springs, which have a tendency to force the tips of said fingers toward each other, and between said fingers is situated a spreader, *f*, which is secured to a rod, *g*, extending through the tubular shaft D.

The outer end of the rod *g*, Fig. 4, is connected to a lever, *h*, which is subjected to the action of a cam, so that a reciprocating motion is imparted to the spreader *f*, causing the same to spread the fingers *e* open or to allow them to close. The spiral of the covering-thread is formed near the tips of the fingers *e*, and as these fingers open or close the diameter of this spiral increases or diminishes.

Through the tubular shaft D extend two threads, *a a'*, which are intended to form the core A, and the binding-threads *b b'* extend over rollers *i i'*, one of which is situated above and the other below the tips of the fingers *e*.

At the beginning of the operation the ends of the threads *a a' b b'* are connected to an ordinary twister, and when the mechanism is set in motion all these threads are twisted together; but since the covering-thread is introduced between the rollers *i i'* in the form of an open spiral, the coils of this spiral are drawn in between the twists of the binding-threads *b b'* as the same are twisted around the straight core A, and an article is produced such as shown in Figs. 1 and 2.

In the example shown in Fig. 1 the diameter of the different sections of my chenille increases and decreases gradually; but it will be readily understood from the above description that by allowing the fingers *e* to remain stationary for a certain time the diameter of the chenille manufactured during that time will remain uniform, and if the fingers are then spread open the diameter of the succeeding section of the chenille will be increased correspondingly. I do not, therefore, desire to confine myself to the precise form of the chenille shown in the drawings.

I am aware that a cut chenille has been made in which the chenille-threads are held between two cords twisted together, and that these chenille-threads have varied in length, in sections, so as to give the trimming a varying diameter; but it will be discovered that the means employed for the manufacture of such a trimming are entirely inadequate to

form an uncut chenille, in which the covering projects spirally from a center, so that the difference between the old form and my present invention is not simply that the former is cut and the latter uncut, but lies in a radical difference of construction, involving the use of a core in addition to twisted or spirally-wound binding-threads for giving the covering its form and holding it in position.

What I claim as new, and desire to secure by Letters Patent, is—

An uncut chenille consisting of a straight core having a covering or wrapping coiled around it in sections of different diameters, and having binding-threads coiled around said wrapping and binding it to the straight core, whereby a series of loops are arranged in a spiral course around the core and project radially therefrom in all directions, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 3d day of November, 1879.

F. W. HUPPELSBERG. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.