

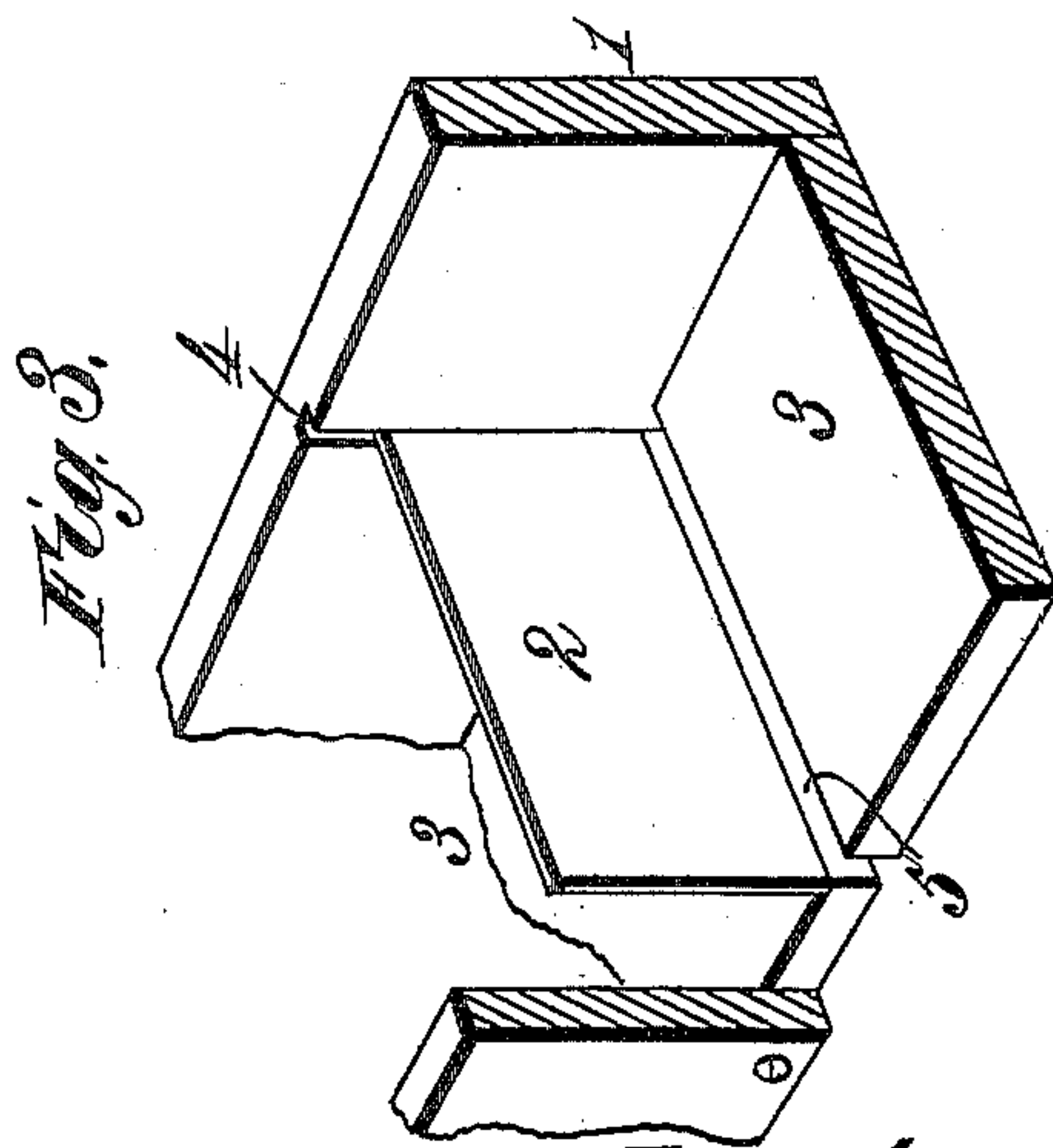
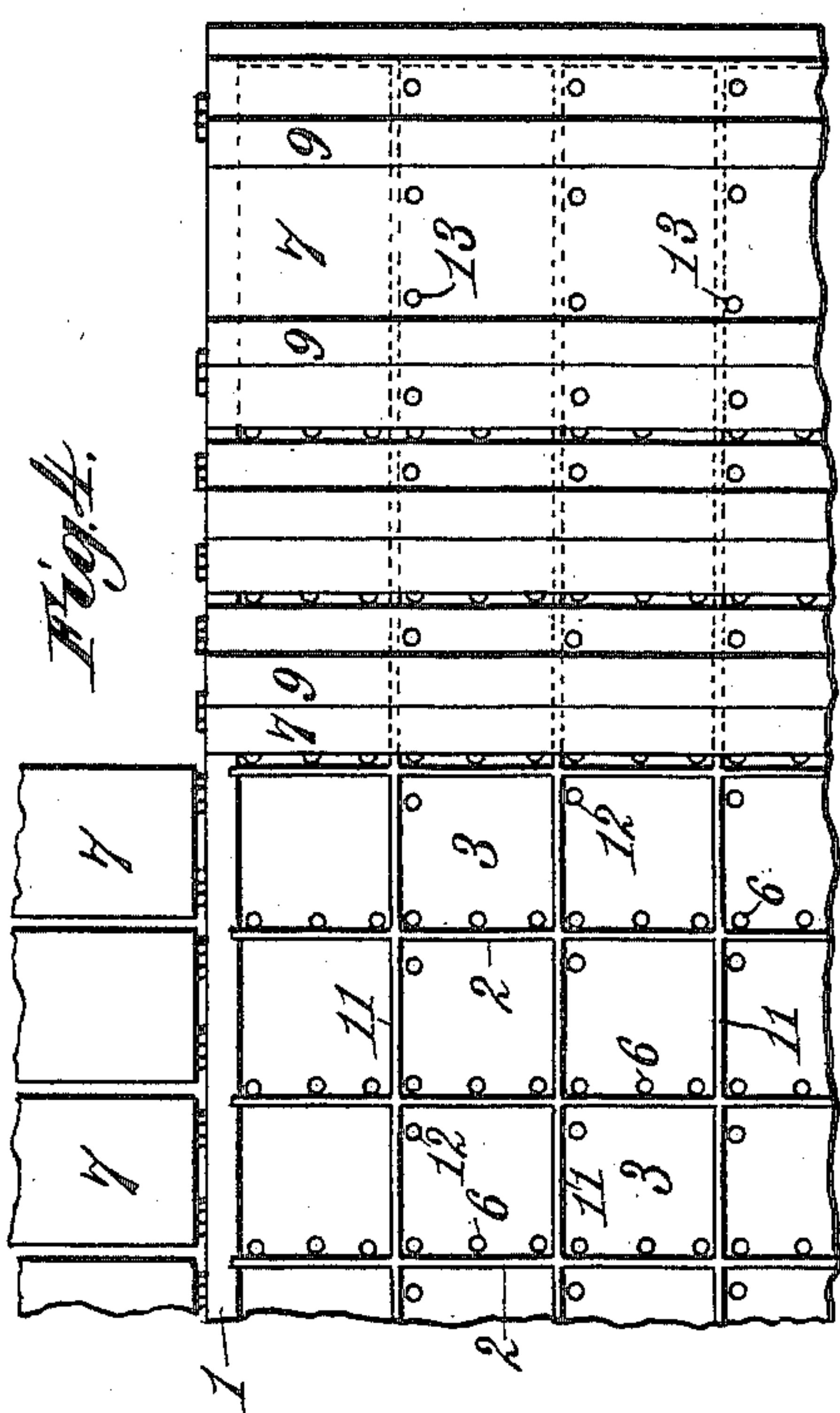
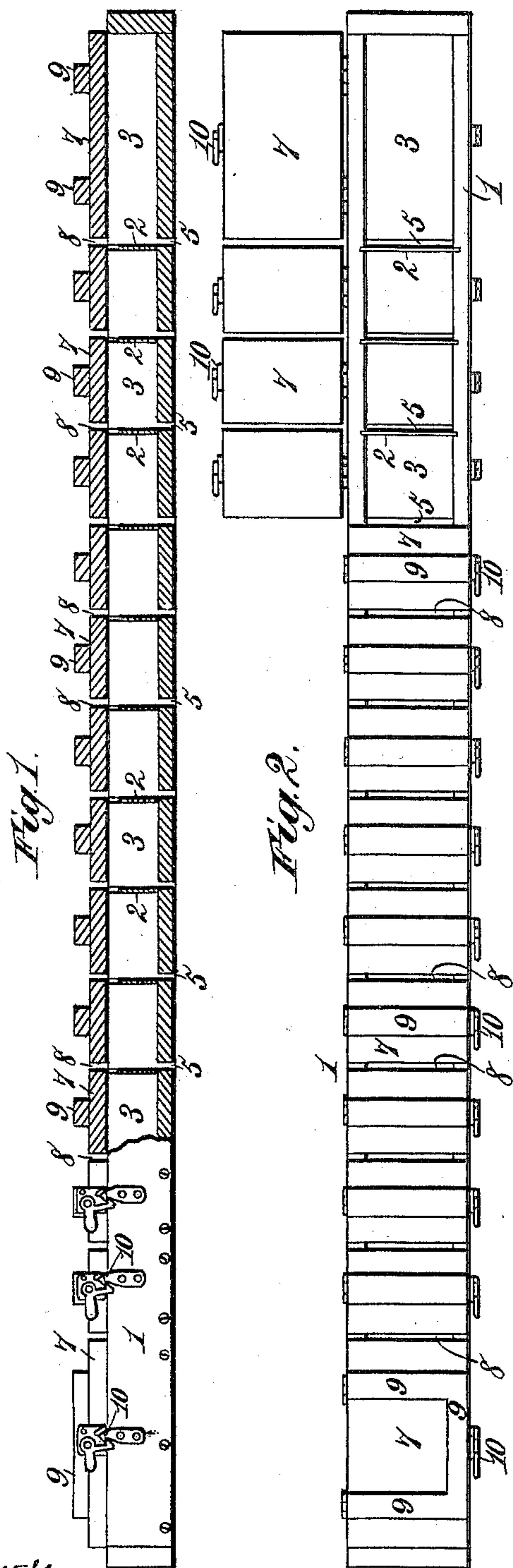
(No Model.)

2 Sheets—Sheet 1.

W. J., T. F., P. H. & J. A. KELLY.
UPHOLSTERING APPARATUS.

No. 599,239.

Patented Feb. 15, 1898.



Witnesses,
Robert Everett,
J. B. Keegan

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By James L. Norring, atty.

(No Model.)

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Fig. 5.

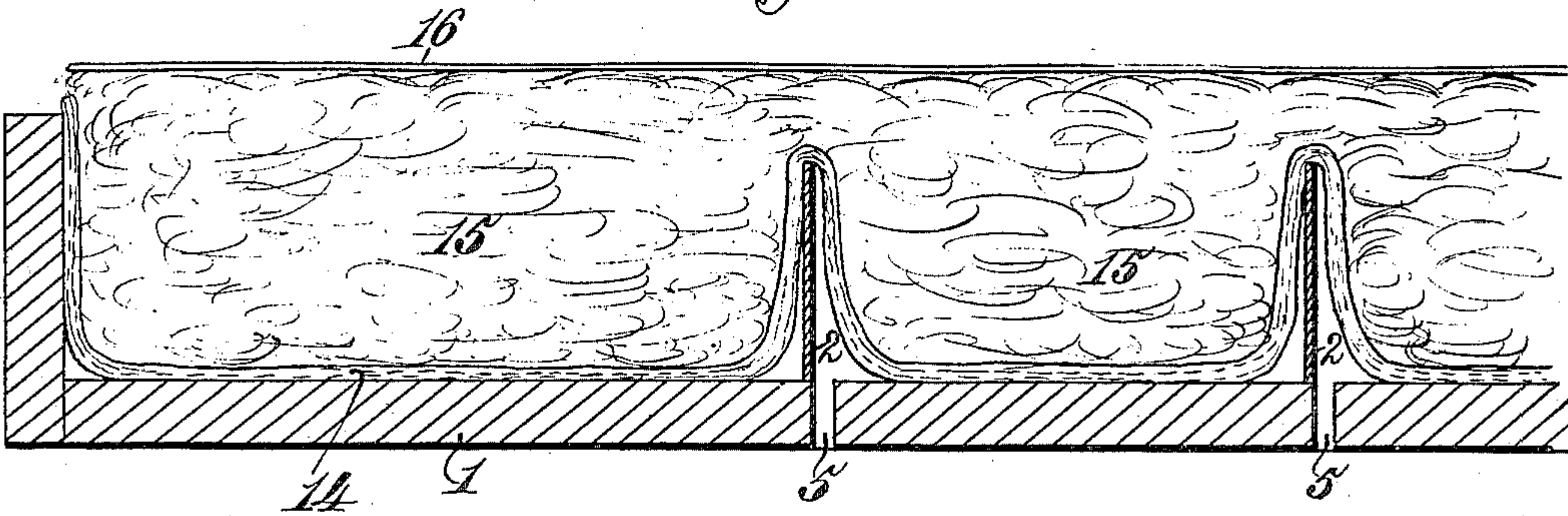


Fig. 6.

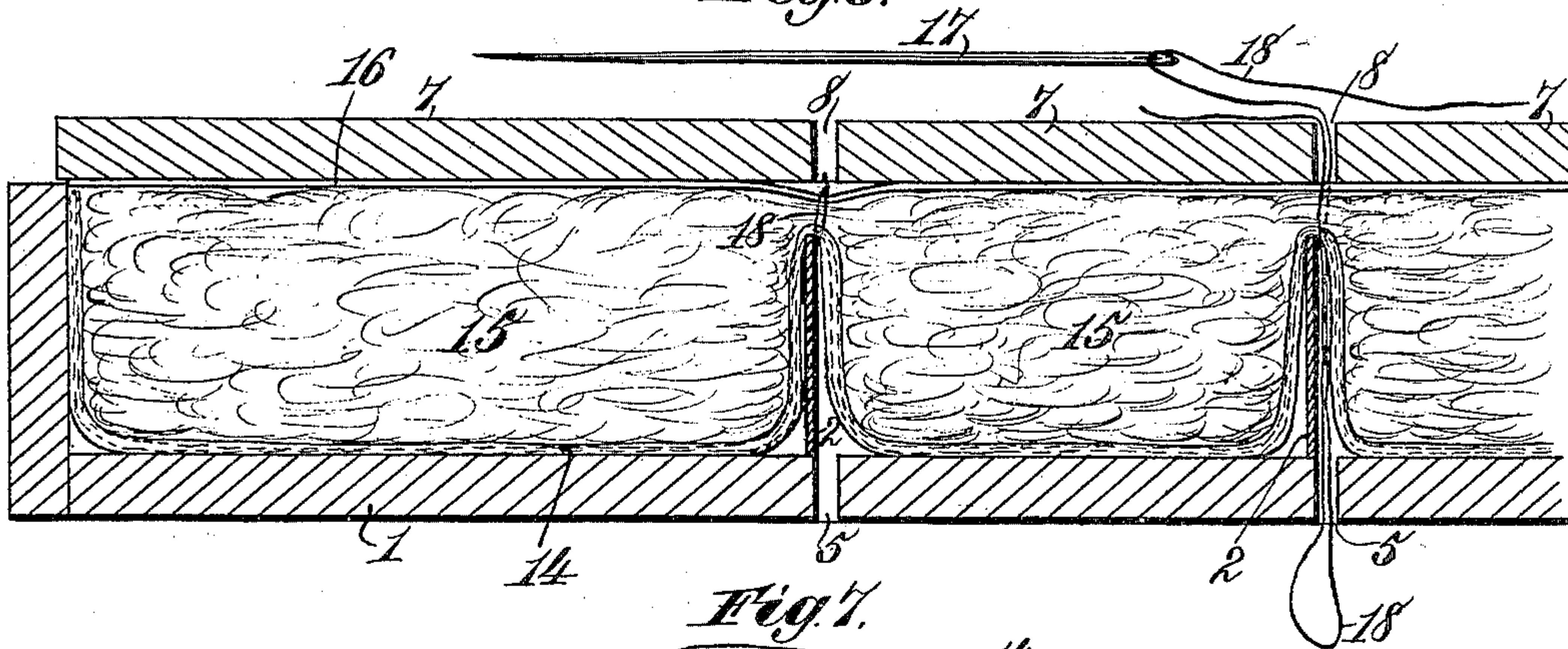


Fig. 7.

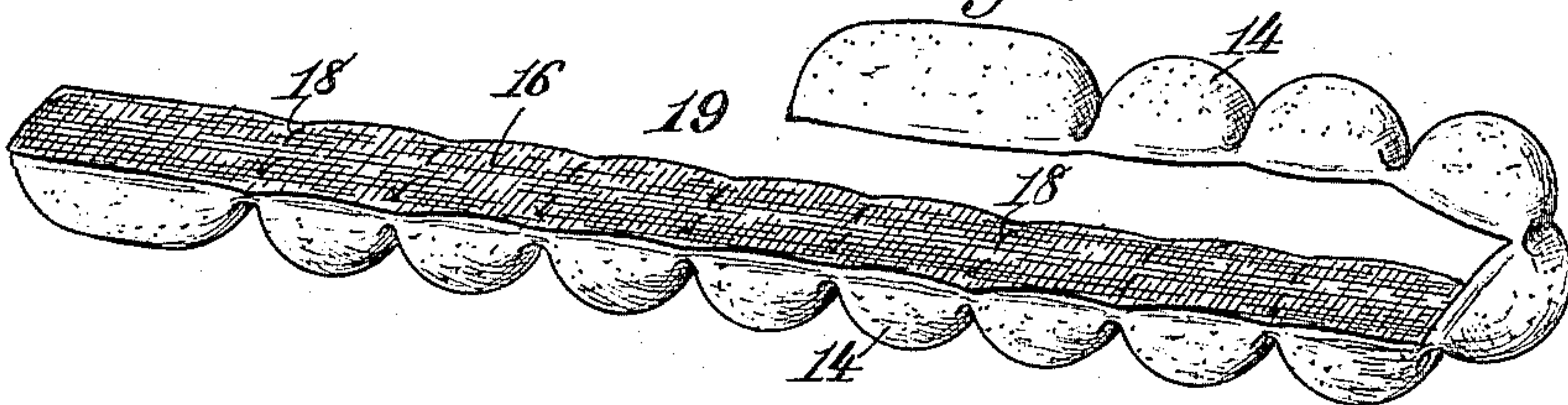
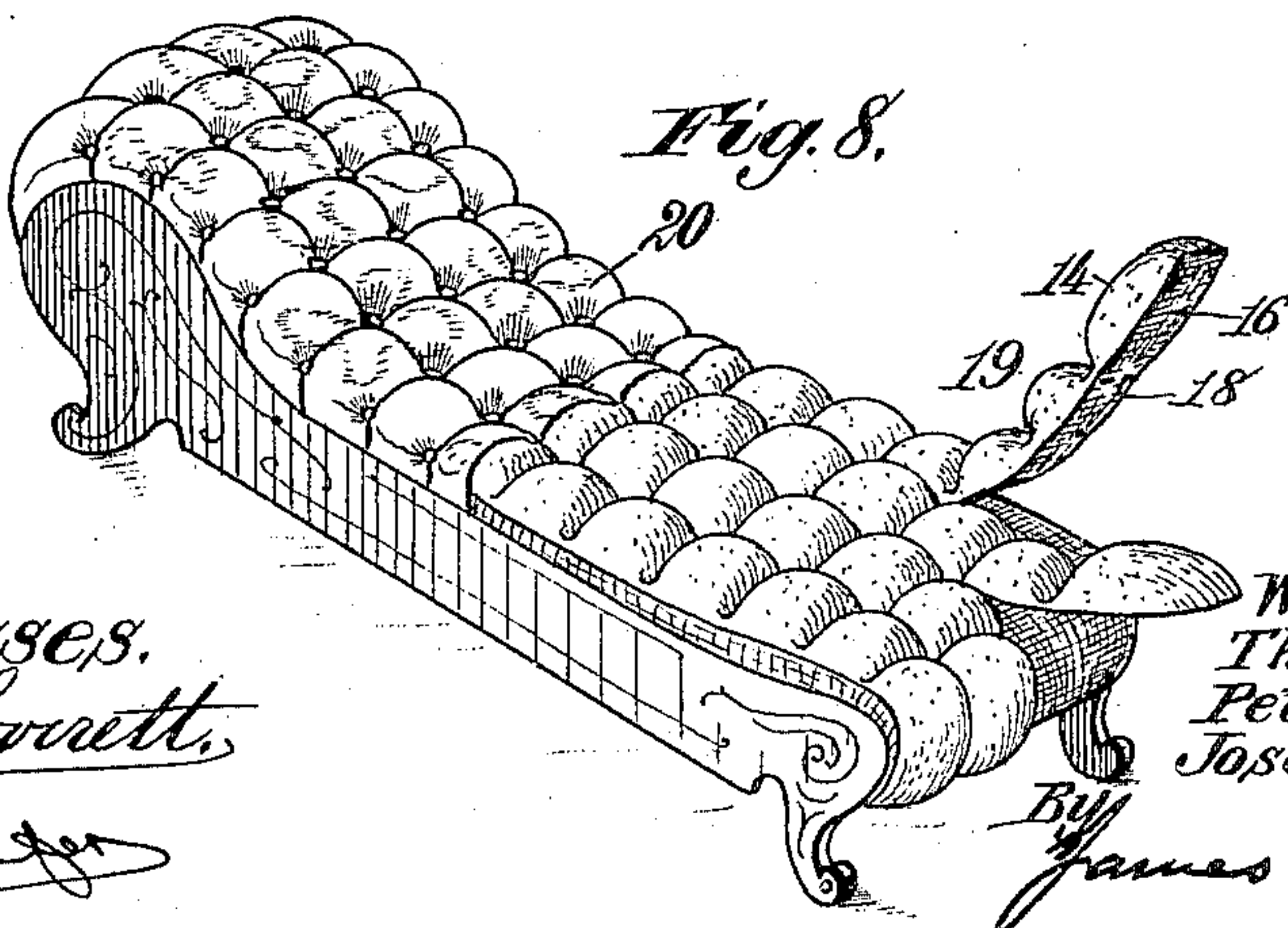


Fig. 8.



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UNITED STATES PATENT OFFICE.

WILLIAM J. KELLY, THOMAS F. KELLY, PETER H. KELLY, AND JOSEPH A. KELLY, OF CLINTON, IOWA.

UPHOLSTERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 599,239, dated February 15, 1898.

Application filed October 12, 1897. Serial No. 654,978. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM J. KELLY, THOMAS F. KELLY, PETER H. KELLY, and JOSEPH A. KELLY, citizens of the United States, residing at Clinton, in the county of Clinton and State of Iowa, have invented new and useful Improvements in Upholstering Apparatus, of which the following is a specification.

10 This invention relates to upholstering apparatus, and has for its object to provide a mold or former that will greatly simplify and facilitate the operations required in the stuffing and sewing or tufting of cushions for
15 couches, carriage seats and backs, chairs, and similar articles of furniture, and for the making of mattresses.

Our invention consists in features of construction and novel combinations of parts
20 in upholstery apparatus, as hereinafter described and claimed.

In the annexed drawings, illustrating the invention, Figure 1 represents one form of our improved upholstering apparatus in part
25 side elevation and part vertical longitudinal section. Fig. 2 is a plan of the apparatus with some of the hinged cover-sections thrown open. Fig. 3 is an enlarged part sectional detail view showing the construction of the mold-
30 compartments. Fig. 4 is a part plan of our upholstering apparatus in a more extended form or of increased capacity and showing some of the mold-covers thrown back. Fig. 5 is an enlarged vertical longitudinal section
35 showing the manner of packing the mold. Fig. 6 is a similar view showing the manner of using the apparatus in the operation of upholstering. Fig. 7 represents a tufted cushion-section ready to be applied to an article
40 of furniture. Fig. 8 represents the operation of upholstering a couch with cushions prepared in our apparatus.

Referring to the drawings, the numeral 1 designates a mold or former that may have
45 any dimensions and any shape suited to the size and desired conformation of the cushion or part of a cushion to be made. The mold

1 is divided by vertical partitions 2, Figs. 1, 2, and 3, into a series of tufting-compartments 3, that may be of equal or varying sizes, as
50 preferred. While the sides and bottom of the mold are most conveniently made from wood, it may be preferable to make the vertical partitions 2 from metal plates that can be easily engaged in grooves 4, Fig. 3, provided for that
55 purpose in the sides of the mold. In the bottom of each mold-compartment 3 there is provided a slot 5, adjacent to one side of one of the partitions 2, as shown in Figs. 1 and 3, or
60 instead of the slot it may be preferable to provide a series of perforations 6, as shown in Fig. 4.

The mold or former 1 is provided with a sectional cover 7, having its separately-hinged
65 parts or sections spaced apart or placed at such intervals as will provide intervening slots or spaces 8 in the top of the closed mold corresponding in position with the slots 5 or perforations 6 in the bottoms of the mold-compartments. Each cover-section 7 may have its
70 outer side securely braced by a strip or strips 9, Figs. 1 and 2, to resist strain when the cover is fastened down onto the filled or packed mold. The closed cover-sections may be securely
75 fastened down by means of spring-catches 10 of any approved construction.

In Fig. 2 our upholstering device is shown as an oblong rectangular mold having therein
80 only a single series of tufting-compartments 3, whereby the mold is adapted to the production of a lengthened cushion-section composed of a single series of tufts of the character shown in Fig. 7, several of these cushion-sections being ordinarily employed in the
85 work of upholstering such an article of furniture as a couch, for instance. We would not be confined, however, to a mold or former having only a single series of tufting-compartments, for, as shown in Fig. 4, there may
90 be comprised in one and the same mold-frame several series of compartments, so as to permit in one operation the giving of any desired width to the cushion or to a mattress produced by the use of this apparatus. When

several series of compartments 3 are provided in the mold or former, the partitions 2 will be associated with other partitions 11, that may extend longitudinally of the mold, as shown in Fig. 4, while the partitions 2 extend transversely. The direction in which the partitions are extended is, however, immaterial, for we would have it understood that the compartments 3 may be rectangular, diamond-shaped, or of any other convenient and desirable form, according to the requirements of the upholstering work. Where there are several series of compartments in a mold, there will be provided in the bottom of each mold a series of perforations 12, Fig. 4, adjacent to one side of each partition 11, and corresponding series of perforations 13 will be provided in the sectional mold-covers. For the production of cushions to be used in the upholstering of couches or lounges and the like it may be preferable to have the end compartments of the mold somewhat longer than the intermediate compartments, but this may be a matter of taste or of special requirements in the particular purposes to which the cushions or cushion-sections are to be applied. Obviously the several compartments in the mold or former may be of equal or varying dimensions, according to the requirements of the upholstering work. The height of the partitions separating the compartments will be less than the depth of the mold, so that there will be sufficient space above said partitions for the intervening portions of upholstering material when the sectional mold-covers are fastened down.

In using this upholstering apparatus the hinged and sectional mold-covers 7 are unlatched and thrown back. A sufficient quantity of cotton-batting or other suitable material 14, Figs. 5 and 6, is then laid along in the consecutive mold-compartments and across the tops of the partitions to completely line the bottoms and sides of these compartments, into which the batting may be pressed with the fingers or otherwise. The compartments of the mold are then supplied with due quantities of curled hair, moss, jute, or other filling material 15, properly pressed into place, and this is then covered with burlap or other suitable backing 16, as shown in Fig. 5. The covers 7 are now closed down, as shown in Fig. 6, and securely fastened by the spring-catches 10 or otherwise, so as to hold the inclosed material firmly in the required shape while being sewed together. By means of a mattress-needle 17, Fig. 6, suitable cord or thread 18 will then be passed by way of the slots 5 and 8 or through the perforations 6 12 13, as the case may be, into and through the upholstering material, so as to secure the parts together in properly-tufted condition throughout the length and breadth of the cushion, which is meanwhile firmly held by

the mold, that may be supported on trestles or otherwise. The mold-covers 7 may now be unfastened and thrown back to permit removal of the tufted cushion or cushion-section 19, Fig. 7, and a series of these may be placed side by side in the upholstering of a couch or similar article of furniture and there provided with an outer ornamental covering 20, Fig. 8, secured in place by any ordinary and well-known means.

It will be seen by reference to the drawings that in passing the needle upward through the slots 5 or through the perforations 6 12, as the case may be, the closely-adjacent mold-partitions will serve as unerring guides along which the point of the needle can be easily and quickly directed with no danger of piercing the batting or carrying the thread through the same until the top of the partition is passed, and then the needle will put the attached thread or cord directly through the upholstering material in position for knotting the cord and completing the tuft without drawing or puckering the fabric unevenly. Thus the location of the needle-passages in close proximity to one side of each mold-partition will make it easy to carry on the operation of tufting very rapidly and with neatness and accuracy. This, too, will greatly reduce the labor and cost of cushion manufacture.

The construction and arrangement of the apparatus in all its various parts are such that a cushion of any softness or hardness can be easily produced according to the degree of compactness with which the material is placed in the mold, while the pressure exerted by the spring-latched sectional covers will securely hold the cushion in the desired shape until the tufting is completed.

What we claim as our invention is—

1. In an upholstering apparatus, the combination with a mold or former comprising a series of tufting-compartments separated by partitions and provided in the bottom of each compartment with needle-passages at one side of the partitions, of a sectional cover adapted to be fastened down over the mold-compartments and provided with needle-passages, substantially as described.

2. In an upholstering apparatus, the combination with a mold or former comprising a series of tufting-compartments separated by partitions of less height than the depth of the mold, of a hinged cover adapted to be fastened down over said compartments, the said cover and the mold-bottom being each provided with needle-passages adjacent to one side of each of said partitions, whereby the partitions serve as guides for a needle, substantially as described.

3. In an upholstering apparatus, the combination with a mold or former comprising a series of tufting-compartments, and partitions

of less height than the depth of said mold, of a sectional hinged cover provided with spring-catches, the said cover and the mold-bottom being each provided with needle-passages adjacent to one side of each of said partitions, substantially as described.

4. In an upholstering apparatus, the combination with a mold or former comprising several series of tufting-compartments separated by partitions of less height than the depth of the mold, of a cover composed of spaced-apart and hinged sections provided with fastening devices, and the said mold being provided in its bottom and cover with needle-passages located adjacent to one side of each partition, substantially as described.

In testimony whereof we have hereunto set our hands in presence of the subscribing witnesses.

WILLIAM J. KELLY.
THOMAS F. KELLY.
PETER H. KELLY.
JOSEPH A. KELLY.

Witnesses to the signatures of William J. Kelly, Thomas F. Kelly, and Peter H. Kelly:
GEO. F. SKINNER,
JOHN BRENNAN.

Witnesses to the signature of Joseph A. Kelly:
F. B. KEEFER,
ROBERT EVERETT.