(No Model.)

T. CORSCADEN.

MANUFACTURE OF HINGES.

No. 462,238. Patented Nov. 3, 1891.

Fig. 1.

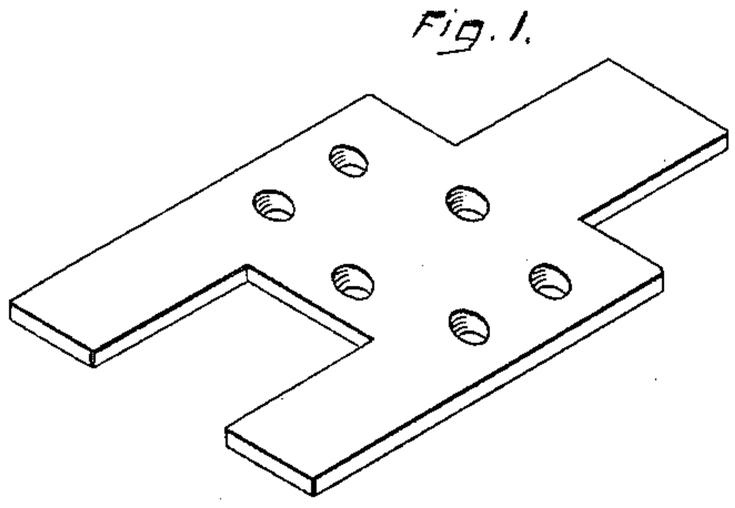


Fig. 2.

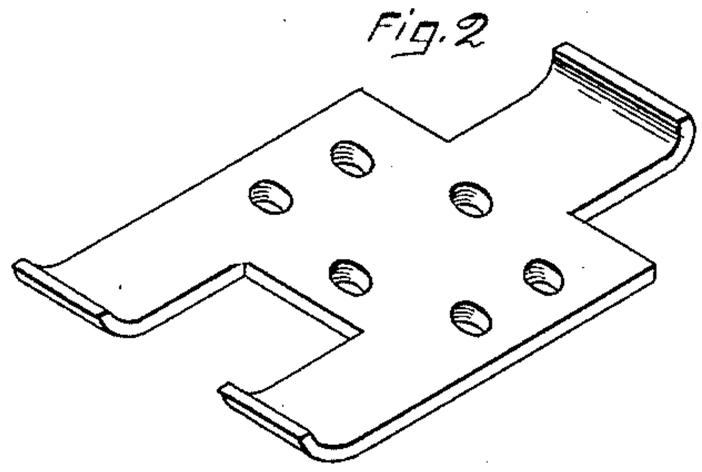


Fig. 3.

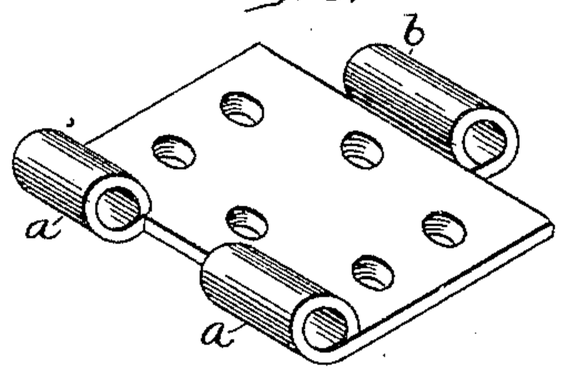


Fig. 4.

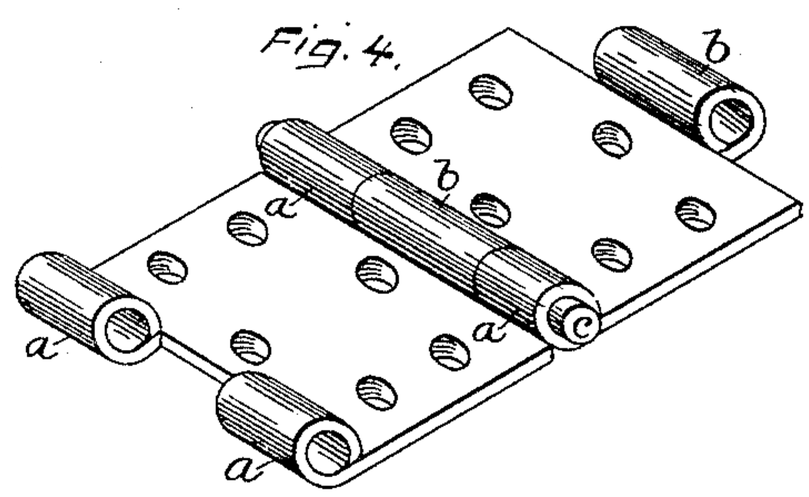


Fig. 5.

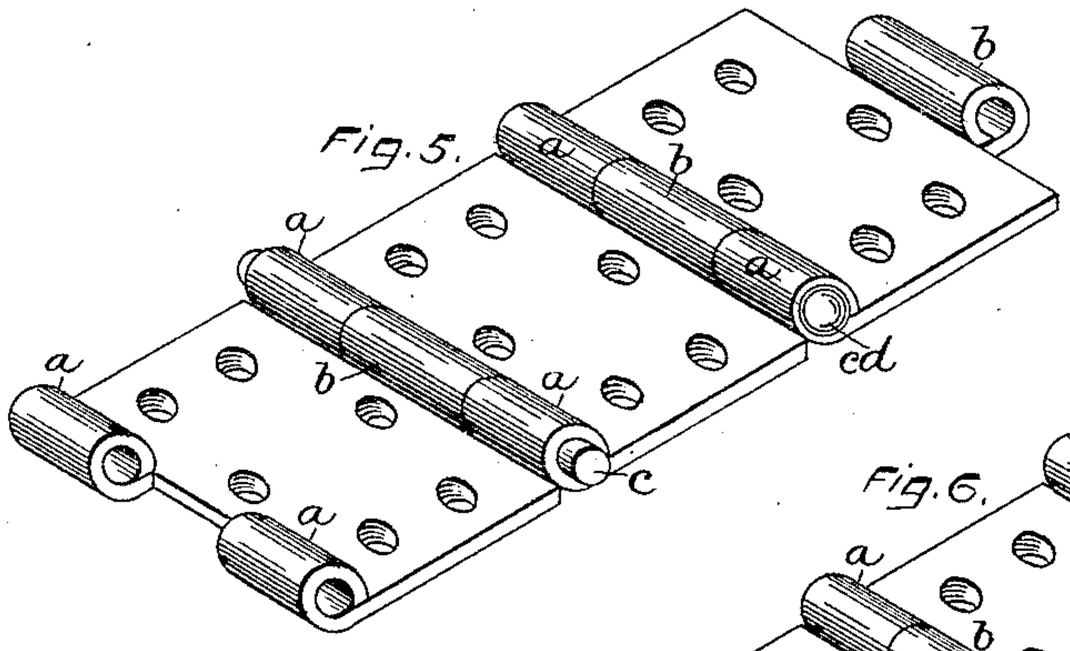
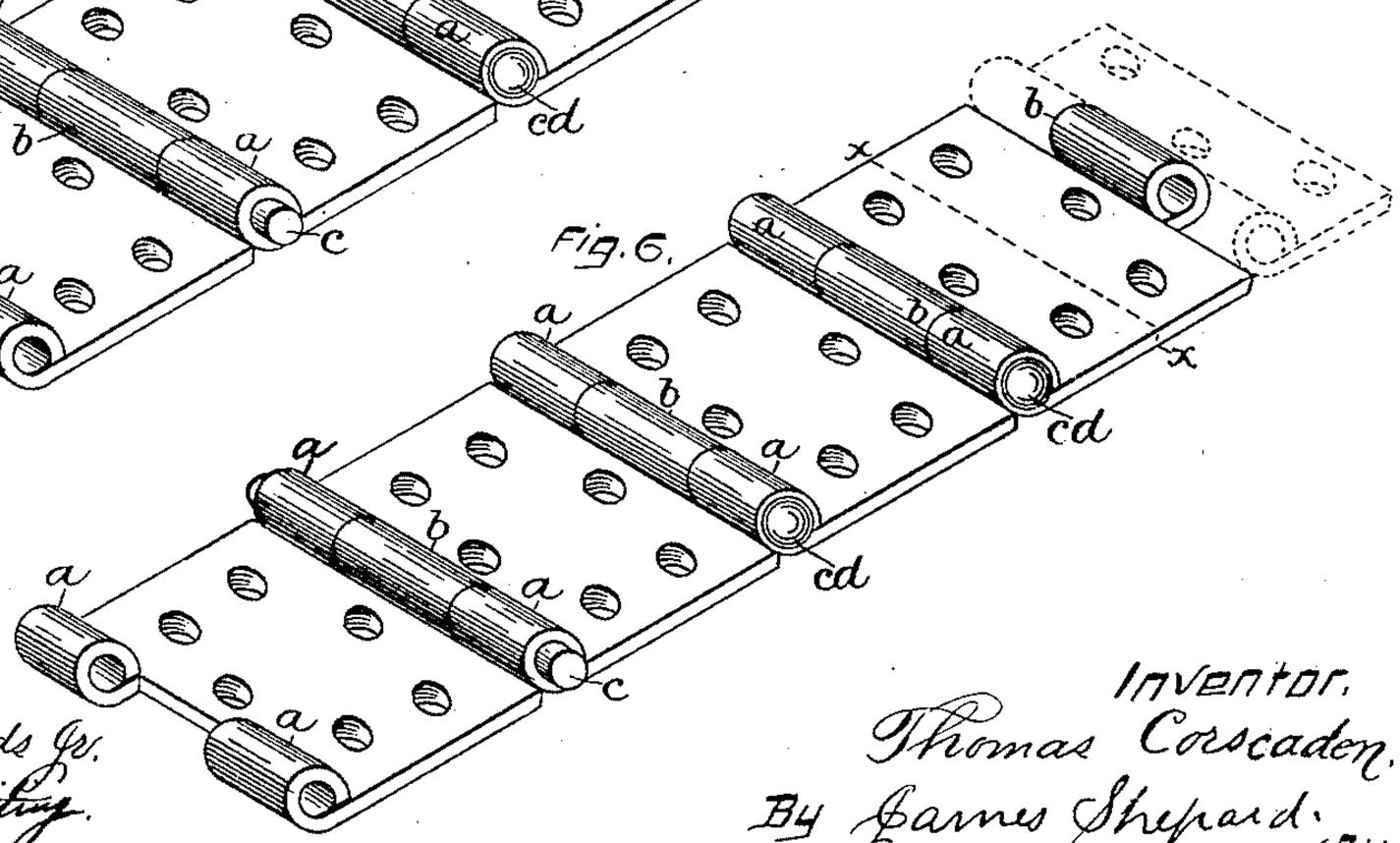


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS CORSCADEN, OF NEW BRITAIN, CONNECTICUT.

MANUFACTURE OF HINGES.

SPECIFICATION forming part of Letters Patent No. 462,238, dated November 3, 1891

Application filed January 30, 1891. Serial No. 379,655. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CORSCADEN, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in the Manufacture of Hinges, of which the following is a specification.

My invention relates to improvements in the manufacture of hinges; and the objects of my improvement are to lessen the expense of production and to enable the operations to be performed by automatic machinery.

In the accompanying drawings, Figure 1 is a perspective view of a compound blank for a pair of hinge-leaves. Fig. 2 is a like view of the same, showing the result of the second step in the manufacture. Fig. 3 is a like view of the same, showing the result of the third step and appproximately the result of the fourth step. Fig. 4 is perspective view of two such compound blanks, illustrating the result of the fifth step. Fig. 5 is a perspective view of three such compound blanks, illustrating the result of the sixth step; and Fig. 6 is a perspective view of four such compound blanks, together with a half-blank in broken lines, the same illustrating the seventh step in the manufacture.

The blank Fig. 1 represents two leaves of the hinge, with appropriate tongues at opposite edges for forming the knuckles, the same being adapted to fit each other and form a pair of hinge-leaves when the blank has been divided transversely across its middle portion. This blank may or may not be provided with screw-holes, and it may be produced in any ordinary manner. It is then struck in suitable dies to partially bend or round up the ends of the tongues, as shown in Fig. 2. The next operation is to finish the bending or rolling of the tongues into complete hinge-knuckles *a a* and *b*, as shown in Fig. 3. In this form the knuckles may be slightly burred at the ends or otherwise irregularly formed, and consequently the next step of the process is to mill or dress off the ends of the knuckles; but the change is so slight in form that Fig. 3 answers perfectly well to illustrate the result of both the third and fourth steps, or either of them. In some cases for very cheap work the knuckles may be formed so short as to render this step of dressing them unnecessary. The blanks Fig. 3 are to be united with other compound blanks, and the fifth step in the process is to place them in position with the knuckle *b* of one compound blank between the knuckles *a a* of the adjoining compound blank and insert the pintle *c*, as shown in Fig. 4, and between the first two of the compound blanks in Figs. 5 and 6. Another compound blank is then added and another pintle inserted, and the pintle which was before inserted has its ends riveted to form the head *c d*, as shown in Figs. 5 and 6. After the riveting the chain or connected series of compound blanks is then moved along, another compound blank added, another pintle driven, and another one riveted or headed, when the forward-end compound blank is cut in two on the line *x x* of Fig. 6. At the beginning of the operation this cutting in two will sever from the series or chain of blanks only a single hinge-leaf, as shown by full lines in Fig. 6; but when this cutting operation is performed the second time and afterward for that lot the result will be to sever or cut off a complete hinge, as indicated by said single leaf in full lines and connected leaf in broken lines, as shown at the forward end in Fig. 6.

The important feature of my invention resides in taking suitably-prepared compound blanks and connecting them together in a series or chain and then severing after the pintle is secured and riveted, so as to sever a complete hinge at each cut, said hinge being composed of the adjoining ends of two of said compound blanks.

By my improvement the operations may be performed more expeditiously than heretofore, and consequently at less cost, and they are particularly adapted to be performed by automatic machinery.

Instead of severing the hinge-blanks as fast as they are riveted, a connected series or chain of indefinite length might first be made and then the hinges cut off by severing each of the compound blanks, as before described. If desired, the single blank that is cut off from the forward end at the beginning of the process in any particular lot of blanks may

be saved and riveted to the single blank, which will be cut off from the last compound blank in the same lot of blanks.

While I prefer to roll the knuckles by the two operations illustrated by Figs. 2 and 3, in some cases these two steps might be performed at one operation, or the partial bend might be made in the blanking-out die, when the final result of the complete process would substantially be the same.

I claim as my invention—

1. The herein-described process of manufacturing hinges, which consists in making or producing a compound blank for a pair of hinges, partially bending the ends of its tongues, rolling or coiling them into a knuckle, and, if necessary, dressing the ends of the knuckles to make them fit, putting two such compound blanks edge to edge and inserting the pintle, riveting the ends of said pintle, and then severing complete hinges therefrom by dividing the compound blank, substantially as described, and for the purpose specified.

2. The herein-described process of manufacturing hinges, which consists in making or producing a compound blank for a pair of hinges, forming or rolling the tongues to form knuckles at each edge, putting two such compound blanks edge to edge and inserting the pintle, riveting the ends of said pintle, and then severing complete hinges therefrom by dividing the compound blank, substantially as described, and for the purpose specified.

3. In the manufacture of hinges, the subprocess which consists in taking prepared compound blanks with knuckles on opposite edges adapted to fit each other, placing the knuckles at the confronting edges of two such compound blanks together and inserting the pintle therein, heading or riveting the ends of the pintle, and severing a complete hinge from a series of connected blanks by dividing said compound blank longitudinally, substantially as described, and for the purpose specified.

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