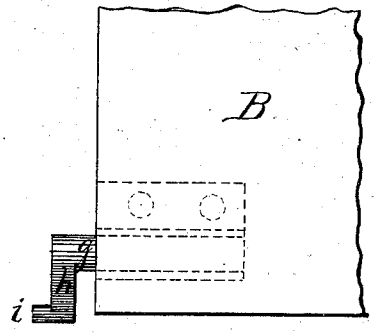
J. D. PEOPLES.

HINGES FOR PIANO LIDS.

No. 193,032. Patented July 10, 1877.

Fig. 1



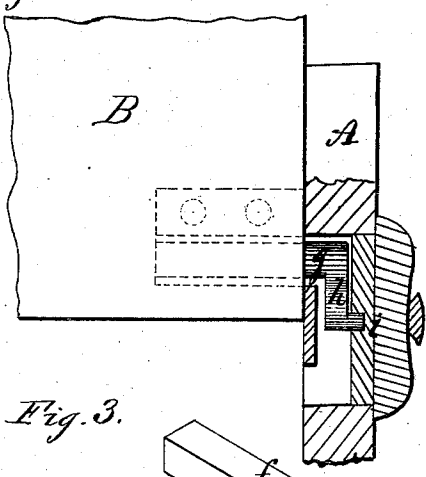


Fig. 2.

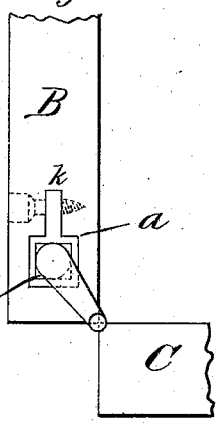


Fig. 3.

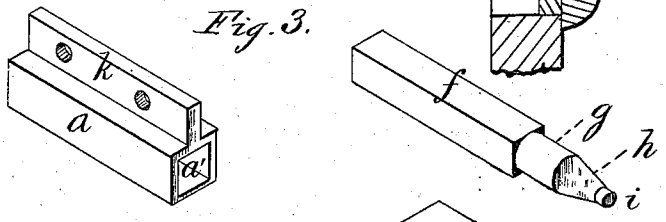


Fig. 6.

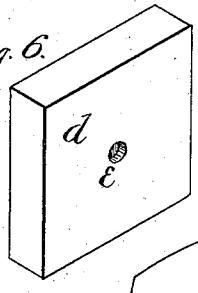


Fig. 4.

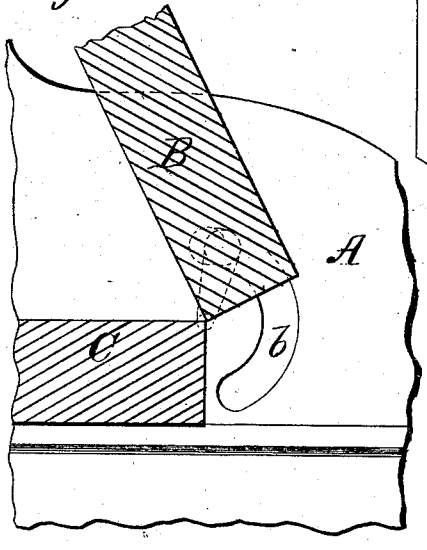
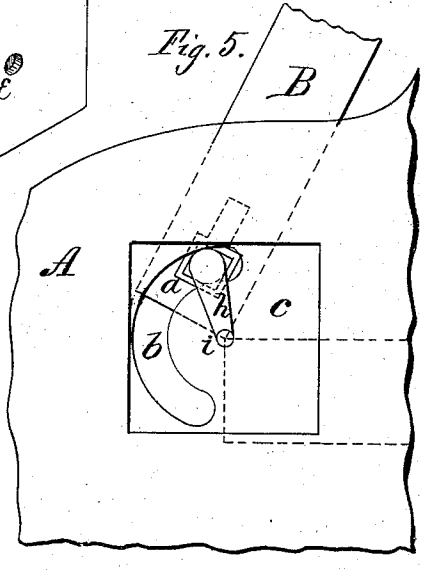


Fig. 5.



Witnesses

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By

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UNITED STATES PATENT OFFICE.

JOHN D. PEOPLES, OF VENICE P. O., PENNSYLVANIA.

IMPROVEMENT IN HINGES FOR PIANO-LIDS.

Specification forming part of Letters Patent No. **193,032**, dated July 10, 1877; application filed April 20, 1877.

To all whom it may concern:

Be it known that I, JOHN D. PEOPLES, of Venice P. O., in the county of Washington and State of Pennsylvania, have invented a certain new and useful Improvement in Hinges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is an elevation of lid in vertical position. Fig. 2 is an end view of same. Fig. 3 are views of socket-piece and cranks. Fig. 4 is a transverse section between ends of lid. Fig. 5 is an end view of parts in position. Fig. 6 is a detail.

This invention relates to the construction of hinges, having especial reference to the hinging of the lids of upright pianos and organs, though capable of adaptation to other objects.

The hinge ordinarily used is not only unsightly in full view, but is subject to strains which crack the wood.

My invention consists of a socket-piece mortised into the ends of the lid near the edge, into which closely fits the stem of a crank, whose pin-center is arranged in line with the rear edge of lid at the corner, so as to revolve constantly on the same axis, and circular slots in the end-boards of the instrument, through which the cranks protrude into outside recesses, where they journal in plugs or boxes fitting the recesses, all as hereinafter fully described and claimed.

In the drawings, A designates one of the end-boards or abutments, and B the lid, which, when shut, closely hugs the horizontal top C. In the ends of the lid B, next the edge upon which it turns, I construct T-shaped mortises, and into these insert correspondingly-shaped socket-pieces *a*, having sockets *a'*, of a square section or other shape, except circular. In the end-boards A, I construct circular slots *b*, springing from the upper front edge of top C as a center. Circumscribed about these slots *b*, on the outer face of the end-boards A, I construct recesses *c*, of any shape, extending partially through the end-boards. Boxes *d* are made to accurately fit recesses *c*, and on their inner faces have a bearing, *e*, for the wrist-pin of the crank. This crank is made up of three parts—the stem *f*, corresponding in section to socket *a'*; the neck *g*, which is rounded; and the crank-arm *h*, carrying the wrist-pin *i*. When in position in its socket the crank is inclined so that the pin *i* and the circular slots *b* have their centers exactly in line.

To fit all together I proceed as follows: I place the socket-piece *a* first in position in the lid ends, and secure them by screws passing through the web *k*, which screws are concealed by plugs, in the usual manner of joiners and cabinet-makers. Then I place the lid in position, and insert the cranks from the outside through slots *b*. When thus placed the cranks lie with their necks *g* in the slots, and their arms *h* and pins *i* in the recesses *c*. Then the boxes *d* are inserted till the pins *i* enter the bearings *e*, after which the boxes may be fastened in any way, and concealed by a piece of molding or an ornamental carving, as desired.

Thus arranged, the hinge is altogether concealed, the lid left free for ornamentation, and, while obtaining all necessary strength, the device is simple and easy of application or withdrawal. It is easily constructed and capable of adaptation to instruments now in use having the ordinary hinge. The crack between lid and top or other part may be so accurately fitted as to be almost imperceptible, which is hardly possible, at least to an equal extent, with common hinges. According to the length of the slots, the lid can rise to vertical, over to horizontal, or to any desired degree of angle, the ends of slots forming stops or rests. All parts except the socket-pieces can be removed from the outside of end-boards A.

I claim—

1. The combination of a lid or door, a crank rigidly secured in each end thereof, and angularly inclined toward its rear corners or edges, and bearings for the wrist-pins, substantially as described, whereby the revolution of the lid or door is effected about an axis in line with the said rear edge of the same.

2. The combination of the mortised lid, a T-shaped socket-piece, and a correspondingly-stemmed angularly-inclined crank, substantially as shown.

3. The combination of the crank, the curved

slot, the recess, and the bearing-box, substantially as shown, whereby the fitting together is done from the outside of the end-boards and the parts concealed.

4. In combination with the bearing box, a section of molding or other ornament, substantially as shown, for the purpose of full concealment.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of April, 1877.

JOHN D. PEOPLES.

Witnesses:
THOS. J. MCTIGHE,
THOS. BINGHAM.