No. 618,358. Patented Jan. 24, 1899.

G. W. KNIGHT & H. W. BRACKEN.

END COVER FOR SPINNING OR TWISTING FRAMES.

(Application filed Oct. 19, 1898.)

(No Model.)

Fig. 1.

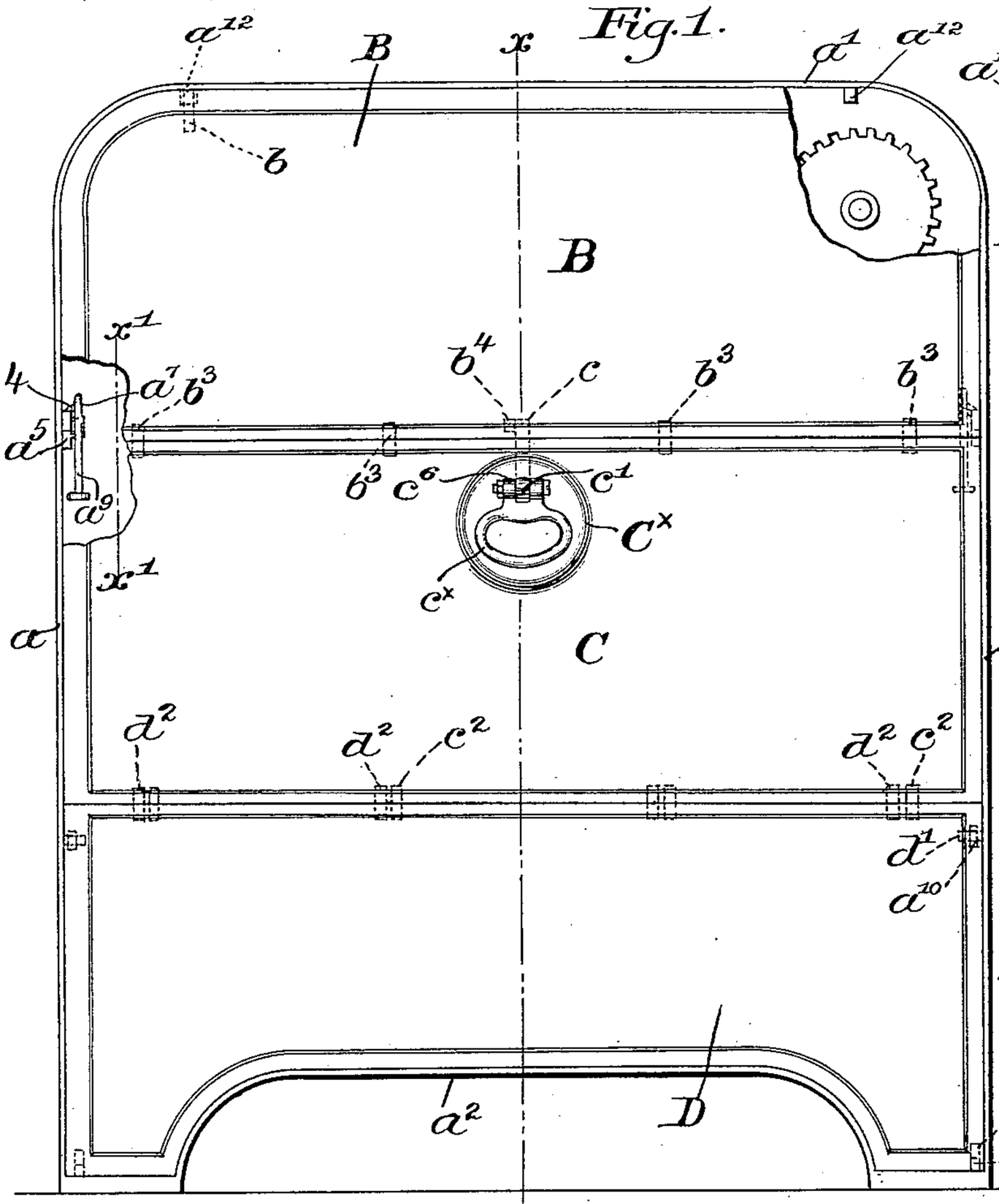


Fig. 2.

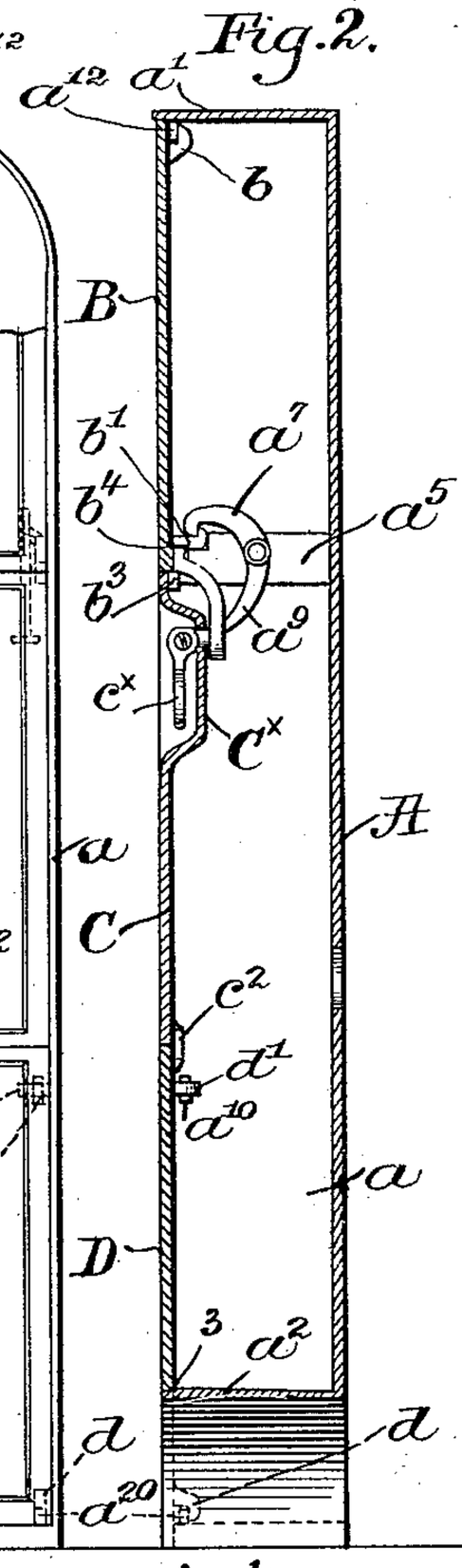


Fig. 5.

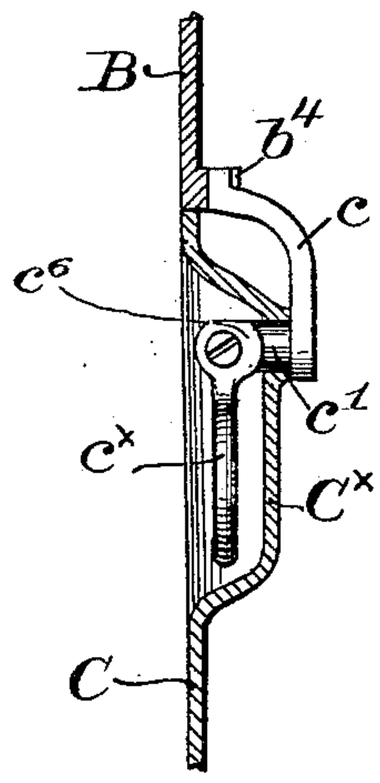


Fig. 3.

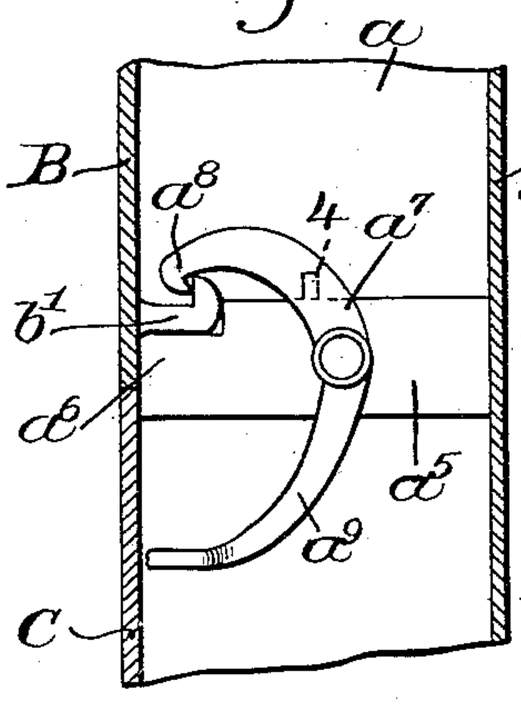
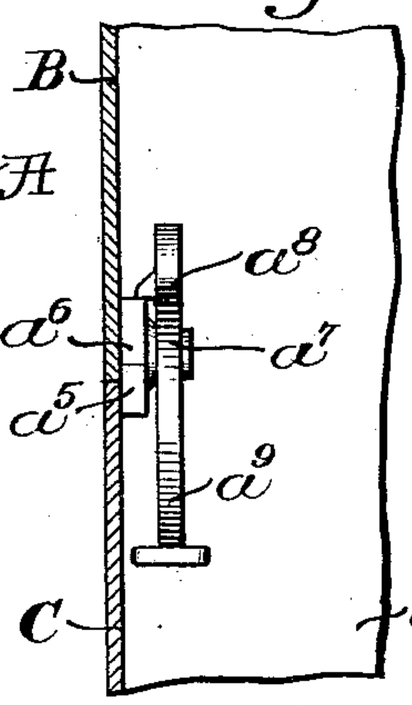


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE W. KNIGHT AND HOWARD W. BRACKEN, OF HOPEDALE, MASSACHUSETTS, ASSIGNORS TO THE DRAPER COMPANY, OF SAME PLACE AND PORTLAND, MAINE.

END COVER FOR SPINNING OR TWISTING FRAMES.

SPECIFICATION forming part of Letters Patent No. 618,358, dated January 24, 1899.

Application filed October 19, 1898. Serial No. 693,976. (No model.)

To all whom it may concern:

Be it known that we, GEORGE W. KNIGHT and HOWARD W. BRACKEN, of Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in End Covers for Spinning or Twisting Frames, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

This invention has for its object the production of an end cover for spinning or twisting frames to cover and protect the mechanism thereat from the entrance of dust and dirt, lint, &c., the cover comprising a plurality of interlocking members adapted to be set in place or removed without recourse to external screws or bolts.

Figure 1 in elevation represents the cover applied to a spinning-frame end, the upper and middle members of the cover being broken out. Fig. 2 is a vertical section thereof on the line $x x$, Fig. 1. Fig. 3 is an enlarged detail of the locking and supporting device for the upper cover member on the line $x' x'$, Fig. 1, looking to the left. Fig. 4 is an edge view thereof; and Fig. 5 is a detail, also enlarged, of the lock for the middle cover member.

The end A of the main frame, which is provided with suitable bearings for the usual mechanism there located, has side flanges a and upper and lower flanges a' a^2, projecting beyond the end A sufficiently to provide a receptacle of proper depth for the mechanism. This receptacle is closed by three removable cover members, as herein shown, B, C, and D, the lower member D having formed on its inner face downturned hooks d near its lower edge, (see dotted lines, Figs. 1 and 2,) which hook over lugs a^{20} on the flange a^2, while horizontal hooks d' on said member, near its upright edges, engage upright lugs a^{10} on the side flanges a. The flange a^2 is recessed or shouldered, as at 3, (see Fig. 2,) to receive the lower edge of the member D, and in applying this member the hooks d' are first slid over the lugs a^{10} and the member lowered until the hooks d engage lugs a^{20}, thereby being held securely in place.

Projecting upwardly from the inner face of the bottom member and located at its upper edge several lugs d^2 are arranged to prevent inward movement of the lower edge of the middle member C of the cover, the latter resting upon the top of the bottom member D. Similar downturned lugs c^2 project from the member C to extend back of the member D, and thereby hold the lower edge of the former from outward displacement, the middle member C being set or positioned after the other two members are in place, as will be described.

The upper member B is shown as provided near its upper edge with upturned hooked lugs b to engage projections a^{12} on the interior of the flange a', and longer combined hooks and supports b' extend from the sides of said member, near its lower edge, to rest on shouldered bearings a^5 on the interior of the flanges a.

It will be obvious from Figs. 1, 2, and 3 that if the hooks b are first brought into cooperation with the projections a^{12} and the bottom of the member B swung in until the hooks b' rest on the shouldered parts a^6 of the bearings a^5 the said member will be supported and also braced against further inward movement. A pivoted latch a^7 is mounted on each bearing a^5, and its hooked end a^8 is adapted to automatically engage the adjacent hook b' when the cover member B is pressed against the tails a^9, locking it in place and preventing its accidental removal, the weighted tail a^9 of the latch acting to maintain it in operative position and further serving as a handle when it is desired to unlock said member. A lateral stop 4 on the latch is adapted to engage the top of the bearing a^5 and prevent improper movement of the latch.

The top and bottom cover members being in place, the middle member C is applied, the projecting stops c^2 at its lower edge passing back of the upper edge of member D, and the member C is then swung into upright position against stops b^3, depending from the lower edge and on the inner face of the top member B. It now only remains to lock the middle member securely in place, and this is herein effected by a latch c, Figs. 1, 2, and 5, at the

inner end of a short shaft c', rotatably mounted in the member C, the outer end of the shaft having jointed thereto a suitable handle $c^{\times}$, the member itself being recessed or concaved at $C^{\times}$ to receive the handle when not extended. The latch c is first turned down and the member C positioned, after which the latch is swung up into locking position, as shown, back of the upper member B and against a stop b^4 on the latter, the handle $c^{\times}$ when turned into the recess $C^{\times}$ serving by its weight to keep the latch c in locking position.

As best shown in Fig. 5, the handle $c^{\times}$ is provided at its pivoted end with cam portions c^6, which press against the bottom of the concavity $C^{\times}$ when the handle is turned down, to thereby hold the two adjacent cover members B and C firmly together when locked and prevent rattle or jar.

When the cover is to be removed, the middle member C is unlocked and removed, and thereafter either or both of the other members B and D can be removed, as desired.

The construction is simple, strong, and readily operated, all bolts or screws are eliminated, and ready access can be had whenever desired to the inclosed mechanism, the cover presenting externally a very neat and attractive appearance.

The lower member D could obviously be made a fixture, if desired, and the other two members made removable by the construction herein shown; but it is preferable to make the entire cover of separate and removable sections or members to facilitate handling and access to the parts protected thereby.

Having fully described the invention, what we claim, and desire to secure by Letters Patent, is—

1. An end cover for spinning-frames, comprising a plurality of removable, interlocking members, and a manually-operated retaining device to maintain said members interlocked in position.

2. In a device of the class described, a plurality of removable cover members, means to retain them in place, and a coöperating cover member provided with a retaining device to maintain it and the other said members interlocked.

3. In a device of the class described, a plurality of removable, independent cover members, means to support and automatically lock one of said members in position, and a manually-operated retaining device carried by the adjacent member, to lock it in place, said latter member when in position preventing access to the locking means of the other member.

4. A spinning-frame having an outwardly-flanged end, removable cover members adapted to interlock and be held in position on the flanged end, automatic latches to engage the inner face of and retain one of said members in place, and a retaining-latch carried by the adjacent member and operable from the exterior thereof, to retain it in place interlocked by the former of said members.

5. A spinning-frame having an outwardly-flanged end, three separate cover members to rest upon the said end and inclose it, hooks on the lower member to retain it in position, latches adapted to automatically engage hooks on the inner face of the upper member, fixed bearings on which said hooks rest, a manually-operated retaining device on the middle member, to engage the upper member and thereby hold said middle member in place, and stop projections at the edges of the upper and lower members adjacent the lower member, to prevent undue inward movement thereof.

6. In a device of the character described, upper and lower cover members adapted to be separately applied, means to retain said members in place and be concealed thereby, a middle cover member, and an exteriorly-operated retaining device to maintain it in position and interlocked with said upper and lower members.

7. In a device of the character described, a plurality of separate, interlocking cover members, a manually-operated retaining device for said members, including an external handle having a cam portion, to hold two adjacent cover members tightly together when the retaining device is in operative position.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GEORGE W. KNIGHT.
HOWARD W. BRACKEN.

Witnesses:
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