

No. 624,115.

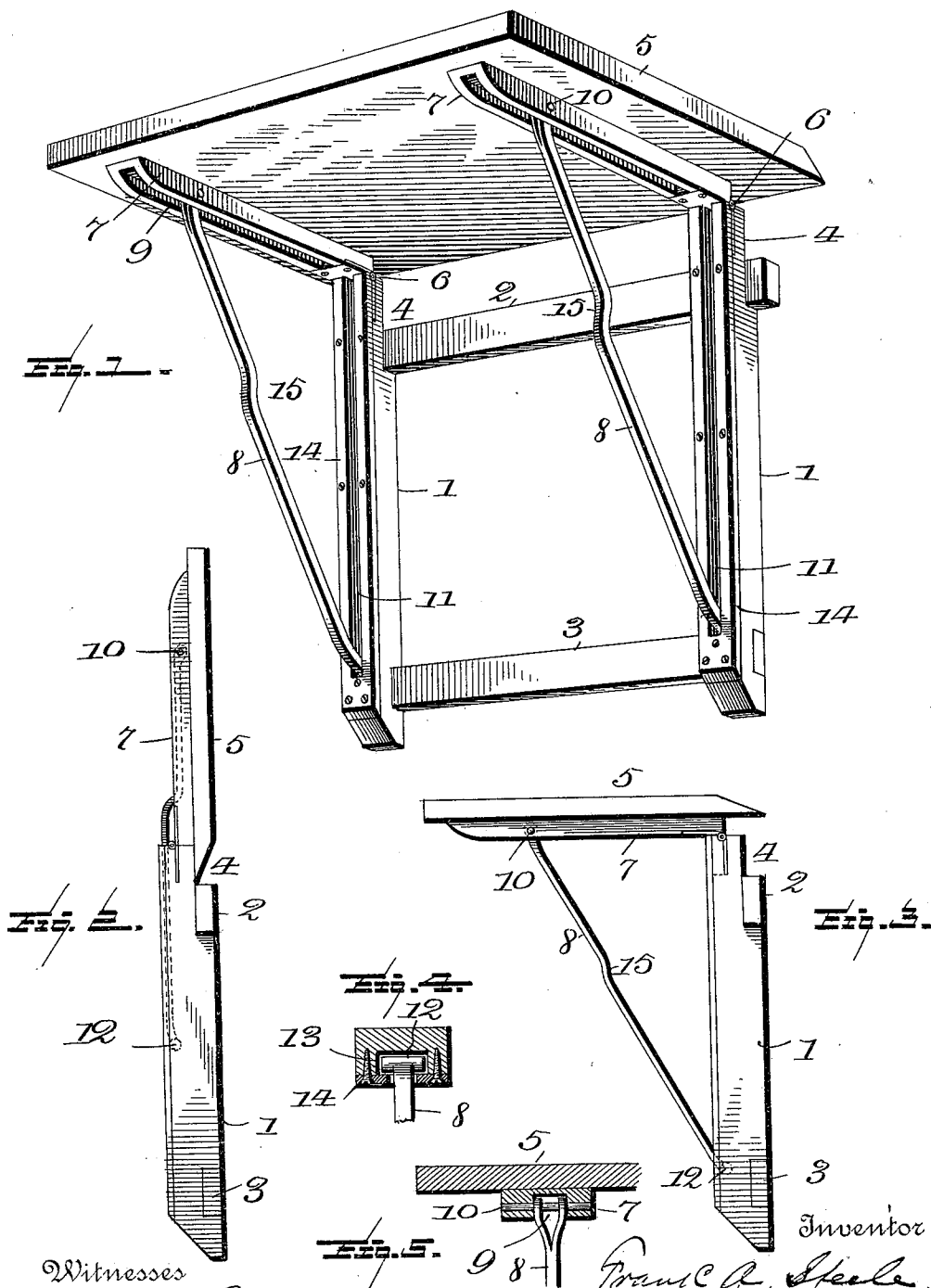
Patented May 2, 1899.

F. A. STEELE.
FOLDING WALL SHELF, TABLE, OR DESK.

(Application filed Jan. 14, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
L. C. Hills
Enoch Edmonston for

Inventor
Francis A. Steele
By *R. E. Anderson*
Attorney

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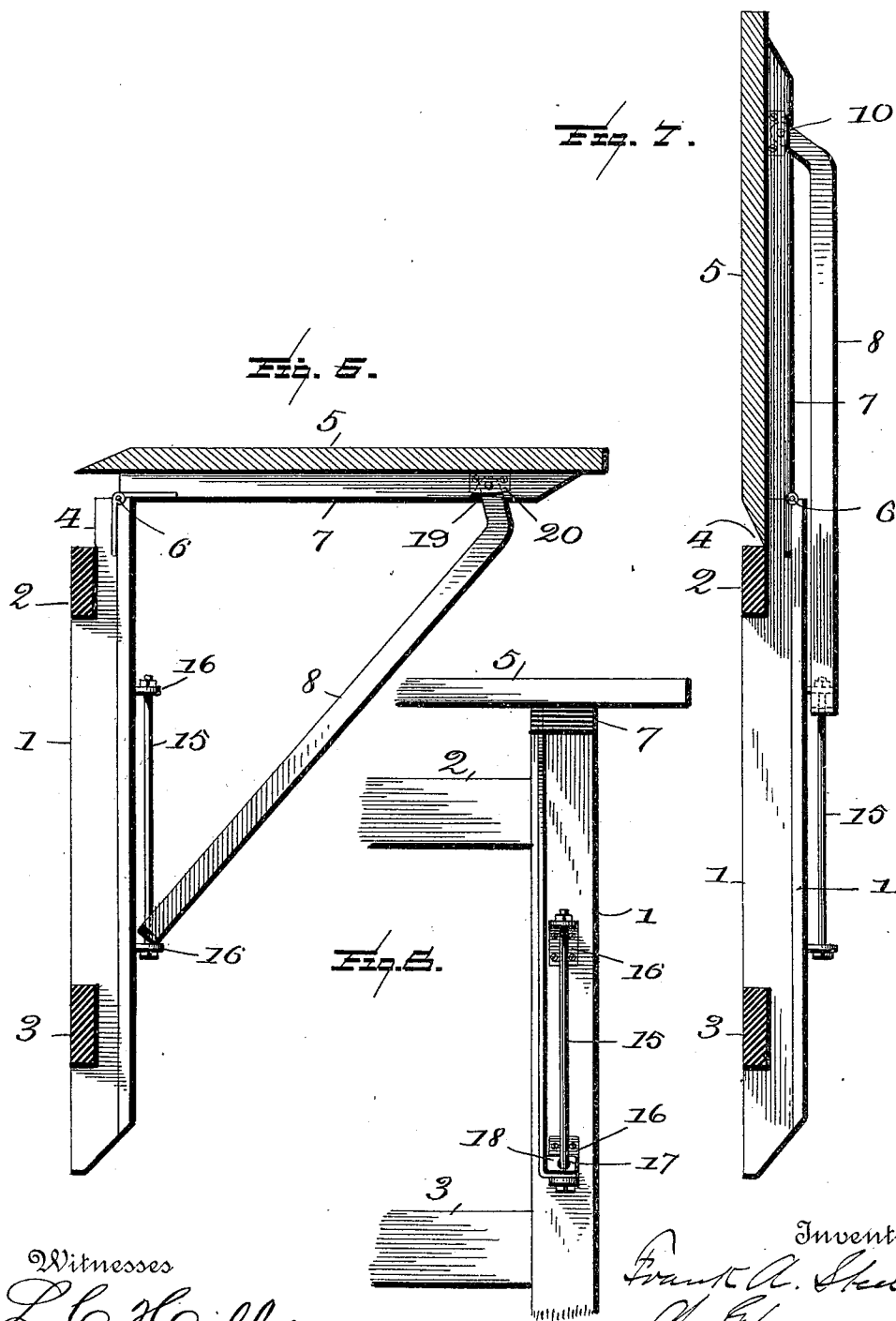
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L. C. Mills.
Enoch Edmonston for

Inventor
Frank A. Steele,
By [Signature]
Attorney

UNITED STATES PATENT OFFICE.

FRANK ADELBERT STEELE, OF MOUNT CARROLL, ILLINOIS.

FOLDING WALL SHELF, TABLE, OR DESK.

SPECIFICATION forming part of Letters Patent No. 624,115, dated May 2, 1899.

Application filed January 14, 1899. Serial No. 702,127. (No model.)

To all whom it may concern:

Be it known that I, FRANK ADELBERT STEELE, a citizen of the United States, residing at Mount Carroll, in the county of Carroll and State of Illinois, have invented certain new and useful Improvements in Folding Wall Shelves, Tables, or Desks; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a folding wall shelf, table, or desk; and it has for its object to construct such a device which will embody simplicity, efficiency, and cheapness in cost of manufacture; also, to provide a construction in which the leaf will be hinged to the standards in such manner that when the leaf is thrown in an upright position its weight will be received and supported directly by the upright standards, so as to relieve the hinges of the strain which otherwise would rest upon them; also, to provide a construction in which the leaf when in its horizontal position will extend over or cover the upright standards and the other parts of the supporting-frame, so that refuse matter and debris will be prevented from falling and lodging on said parts, the construction also being such that the leaf can be thrown into its upright position without its rear edge binding against the wall or other backing against which the device may be set; also, to provide improved means for connecting the brace-rods to the standards and leaf, so that they will be more securely connected thereto and may be received into grooves provided therefor when the leaf is raised, thereby enabling the brace-rods to be brought into a position which will afford the minimum of projection or obstruction when the leaf is raised.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the construction and also in the combination of parts hereinafter particularly described, and then sought to be specifically defined by the claims, reference being had to the accompanying drawings, forming a part thereof, and in which—

Figure 1 is a perspective of the table with its leaf lowered; Fig. 2, a side view with the leaf raised; Fig. 3, a side view with leaf down; Figs. 4 and 5, sectional detail views; Fig. 6, a vertical section of a modified form with leaf down; Fig. 7, a vertical section with leaf raised; and Fig. 8, a front view of a portion of the table.

In the drawings the numeral 1 designates two uprights or standards, which are connected together by the transverse bars 2 and 3, which are set into the standards, so that their rear faces will be flush with the rear faces of the uprights or standards, and the upper ends of the standards above the top cross-bar 2 are recessed, as shown at 4, so that when the leaf is thrown into its upright position the rear edge thereof will lie in said recesses.

The leaf or shelf, which is indicated by the numeral 5, is hinged to the upper end of the standards or uprights 1 by the hinges 6, one leaf of which hinge is secured to the uprights or standards and the other leaf to the bars 7, which bars are secured to the under side of the leaf or shelf. The bars 7 are so located and the hinges 6 are so positioned—for instance, as illustrated in the drawings—that when the leaf or shelf is turned into its upright or vertical position the ends of the bars 7 will rest directly upon the ends of the uprights or standards, so that all strain is thus taken from off the hinges and the standards are caused to support the leaf or shelf with its weight resting directly thereon. It will also be observed that with the leaf or shelf applied as described, with the ends of the leaf and also its rear edge extending over or beyond the rear faces of the uprights or standards, as well as beyond the side faces thereof, so that with the standards bearing against the wall no refuse matter which may fall from the leaf or shelf will lodge upon any part of the standards or frame proper of the table or shelf, thus insuring cleanliness and preventing the accumulation of any dirt or refuse upon any portion of the table. In order that the leaf may stand upright and rest upon the standards when the standards are flush against the wall or other support against which the table may be placed, I bevel the shelf or leaf at its rear from side to side. This construction en-

ables the leaf to be thrown in either its upright or horizontal position without its rear edge binding against the wall or other support against which the the standards or frame proper of the table may be placed.

The leaf or shelf when in its horizontal position is braced by brace-rods 8, which have a sliding connection at one end and a pivotal connection at the other with the shelf or leaf and with the uprights or standards. It is preferred that the sliding connection should be between the uprights or standards and one end of the brace-rods and the pivotal connection between the outer ends of the rods and the leaf or shelf, as illustrated in the drawings; but I do not limit myself to such preferred manner of connecting those parts, except in the claims, which specifically mention such particular form. It will be observed that one end of the brace-rods is forked or bifurcated and enters the grooves or channels 9, formed in the bars 7, secured to the inner side of the leaf or shelf, such bifurcated ends being secured to said bars by the pivot-pins 10, which lie inside of the grooves 9, the forks of the brace-rods practically making the rods at their pivot ends substantially the width of the grooves 9, so as to prevent side movement of the brace-rods. The lower ends of the brace-rods fit in grooves or channels 11, formed in the front faces of the uprights or standards and extending the length thereof, and slide in said grooves or channels as the leaf or shelf is raised or lowered, the connection between the sliding ends of said brace-rods and the uprights or standards being such as to prevent the ends of the rods from leaving the grooves or channels in the raising or lowering of the leaf. The preferred construction for this purpose consists in forming an enlargement or pintle 12 at the sliding ends of the brace-rods, which enlargement or pintle will operate in undercut portions 13 of the channel or way. I prefer to form the grooves or channels 11 in wooden or metallic plates 14, which will be secured by screws or other means to the front faces of the uprights or standards 1, so as to constitute a part of the uprights or standards. By this construction I can, if desired, pass the brace-rods through the slots in the face-plates before the latter are placed in position, and when the same are secured in place they will prevent the sliding ends of the brace-rods from working out of the grooves or channels. The grooves 9 in the bars 7 and the grooves 11 in the upright standards are also designed to receive the brace-rods lengthwise when the leaf or shelf is in its raised position so that said brace-rods lying within said grooves will practically lie flush with the uprights or standards and the bars on the under side of the leaf or shelf, and thus the minimum of obstruction will exist. Furthermore, by these brace-rods lying within these grooves the leaf or shelf is strongly braced against any side movement which might throw unnecessary strain upon the hinges which con-

nect them to the uprights or standards. The brace-rods may be formed with a bend at the points 15 adjacent to the hinged connection between the leaf and standards, so that said rods will enter the grooves in the bars 7 adjacent to the hinges which connect them to the uprights or standards.

A folding wall shelf, table, or desk formed as described can be made at comparatively little cost and yet at the same time will present a very strong and durable table. It can be very readily secured to the wall or other back support provided for it, and when the shelf or leaf is not in use it can be thrown up flush against the wall or back support, so as to be out of the way. I have in describing the details of the several parts pointed out the advantages of these several features of construction, and the same therefore need not be repeated.

It is obvious that changes can be made in the details of the parts without departing from the essential features of the invention, and therefore I wish it understood that the invention is not confined to details in all the features thereof. As an instance of one change I have illustrated a modification in Figs. 7, 8, and 9 of the drawings wherein guide-rods 15 are substituted for the grooved ways in the upright standards, said rods being sustained by the angle-irons or brackets 16, and the lower ends of the brace-rods 8 instead of being formed with pintles or enlarged ends are formed with elliptical or elongated openings 17 in the inturned lips 18 to the rods, so that in the movement of the leaf or shelf the brace-rods will slide on the guide-rods, and when the leaf or shelf is raised the brace-rods will assume the upright position indicated in Fig. 8 of the drawings. In this modified form the upper ends of the brace-rods will be turned inwardly, as indicated in Figs. 7 and 8, and pivotally connected to the bars 7, and in this form the bars 7 may be solid instead of channeled and have recesses 19 cut in their sides for the inturned ends of the brace-rods, which recesses may be closed on the side by the plates 20, which will also serve as a bearing for the end of the pivots which hinge the inturned ends of the brace-rods thereto. It is obvious that the guide-rods and the bars 7 may be transposed and substantially the same operation secured.

Having described my invention and set forth its merits, what I claim is—

1. The folding table or shelf comprising the standards and the leaf hinged to the standards and having its rear upper edge beveled from side to side and adapted to lie back of and below the top of the standards when raised to a vertical position, substantially as described.

2. The folding table or shelf comprising the standards recessed in their rear faces at their upper ends, and the leaf hinged to the standards and having its rear edge beveled from side to side, substantially as described.

3. The folding table or shelf comprising the standards, and the leaf hinged to the standards and provided with the cross-bars on its under face located to have their ends rest upon the upper ends of the standards when it is in its raised position and means for supporting the leaf, substantially as described.

4. The folding table or shelf comprising the standards, the leaf hinged thereto, and the brace-rods connected at one end to a portion of the leaf and at the other end to the standards, the connection at one end being pivotal and at the other sliding, said standards and a portion of the leaf being formed with grooves to receive the brace-rods lengthwise when the shelf is moved to its vertical position, substantially as described.

5. The folding table or shelf, comprising the standards grooved on their inner faces, the leaf provided with cross-bars formed with grooves in line with the grooves of the standards, and the pivoted unjointed folding brace-rods adapted to lie in said grooves when the shelf is raised to its vertical position, substantially as described.

6. The folding table or shelf, comprising the standards, the leaf hinged to the standards, the cross-bars on the under face of the leaf

and formed with longitudinal grooves, the face-plates secured to the standards and grooved or slotted longitudinally, and the brace-rods pivotally connected to the grooved cross-bars of the leaf and at one end passing through the slotted face-plates and adapted to slide therein, said grooves being formed so that the brace-rods will lie lengthwise therein when the rods and shelf are raised to a vertical position, substantially as described.

7. The folding table or shelf comprising the longitudinally-grooved standards, the leaf hinged to the standards and provided with grooved bars, and the brace-rods having a sliding connection with one of said parts and a pivotal connection with the other and formed with a bend between their ends, the grooves in the standards and the bars to the shelf being formed to receive the brace-rods when the rods and the shelf are raised to a vertical position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK ADELBERT STEELE.

Witnesses:

CHAS. H. SCHRINER,
EGBERT T. E. BECKER.