(No Model.)

W. S. GRAY.

TEMPORARY BINDER.

No. 464,662. Patented Dec. 8, 1891.

Fig. 1

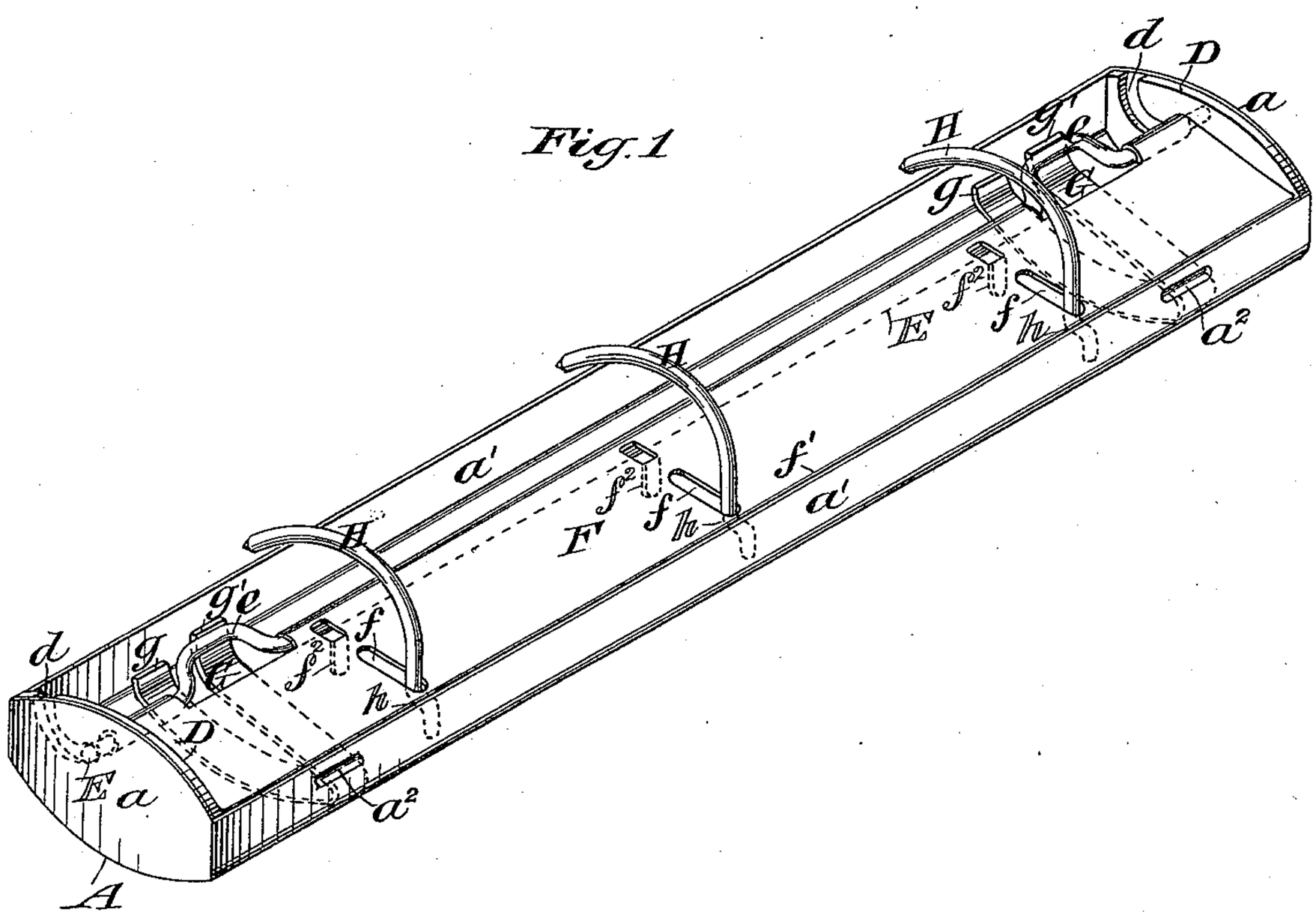
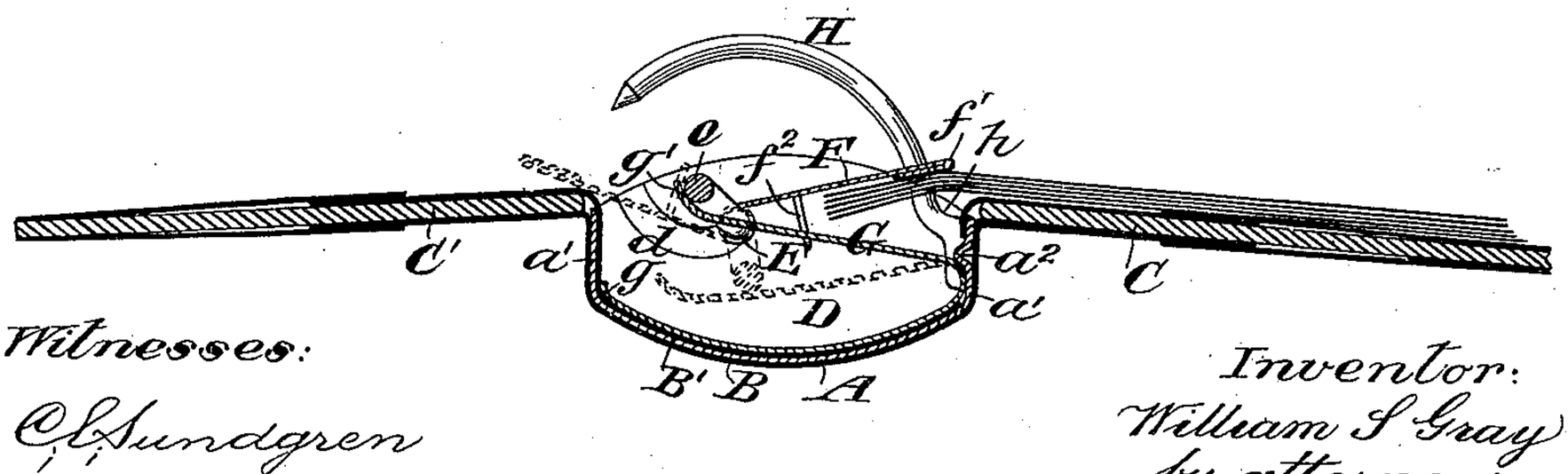


Fig. 2.



Witnesses:

C. L. Sundgren

George Barry.

Inventor:

William S. Gray

by attorneys

Brown & Seward

UNITED STATES PATENT OFFICE.

WILLIAM S. GRAY, OF JERSEY CITY, NEW JERSEY.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 464,662, dated December 8, 1891.

Application filed April 6, 1891. Serial No. 387,738. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. GRAY, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Temporary Binders, of which the following is a specification.

My invention relates to an improvement in temporary binders, in which provision is made for sliding the edges of papers or letters over retaining pins or spurs and holding them in position by a spring-actuated clamp.

This invention has for its object the improvement of what is known extensively in the trade as the "Sisson" file or binder, and contemplates the mounting of the clamp in the inside of the ends of the casing in the manner hereinafter described, so as to leave the exposed ends of the casing smooth, providing inwardly-extending projections at the side of the casing for retaining the springs in position, forming the free ends of the springs upon a curve to prevent abrasion of lining and a more effective pressure upon the clamp, and offsetting the pins or spurs from the side of the casing to do away with the overlap of the edge of the clamp and the consequent strain upon the cover.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of the binder in perspective, detached from the cover; and Fig. 2 is a view in transverse section through the binder and cover to which it is secured, showing also the position of papers adjusted thereon.

The casing, which may conveniently be formed of thin sheet metal, is provided with a rounded bottom A, with oval-shaped ends *a*, and with narrow sides *a'*, the face of the casing being left open so that it may be secured between the flexible strips B and B', of leather or other suitable material, connecting the adjacent edges of a pair of covers C C' and forming in external appearance the back of a bound volume. The ends *a* of the casing have fitted adjacent to their inner faces pieces D, which correspond in shape to the ends *a*, and have sufficient thickness to form suitable bearings for the ends of the spindle or shaft E, to which the clamping-piece F is secured. The spindle or shaft E, together with the clamping-piece F, is made removable from the ends by means of slots *d*, which extend from the edges of the pieces D downwardly, laterally, and upwardly, terminating at the points where it is desirable that the ends of the spindle or shaft E should rest when in operative adjustment. The slots *d* are of such size as to admit, with an easy sliding fit, the ends of the journals of the spindle or shaft E, and when the latter is inserted therein it is held against outward displacement by the ends of the slots *d* and against a retrograde movement in the slot by means of the springs G. This structure admits of leaving the exterior ends of the casing smooth, while they are re-enforced on their inner faces by the pieces D, and the spindle or shaft of the clamping-piece has its bearings hidden within the ends and may be readily removed for inserting the casing in its position in connection with the covers. The springs G, of general U-shaped form, as is common, have their free ends *g* and *g'* curved upwardly, as clearly indicated in the drawings, the former *g* for the purpose of accommodating itself to the lining B', so as to prevent any abrasion or tearing of the lining by any slight shifting of the spring when being compressed or expanded, and the latter for the purpose of partially surrounding the crank or cam portion *e* of the spindle or shaft E, so that the upward pressure of the spring, which is exerted to throw the clamping-piece F over into position to retain the papers, will exert a pressure laterally of the length of the spindle as the clamping-piece approaches the limit of its adjustment in engagement with the papers. The springs G are held securely in position against an upward or outward displacement by means of projections a^2, extending inwardly from the side *a'*, against which the bights of the springs rest, so as to slightly overlap the upper portions of the bights of the springs. The projections a^2 are conveniently formed by indenting the side *a'* from the outside. The pins or spurs H are fixed at one end to the inner face of one of the sides *a'*, and as they approach the upper edges of the side are offset therefrom a short distance, as clearly indicated at *h*, Fig. 2, so as to leave a space between the back of the pin or spur and the up-

per edge of the side a' to admit the free edge of the swinging clamping-piece F within the side a'. Such offset of the pins or spurs from the edge of the side a' admits of forming the closed slots f in the clamping-piece F for the passage of the pins or spurs, and at the same time prevents the overlapping of the free edge f' of the clamping-piece, and avoids the liability of the same to pry upon the cover when the latter is closed, and the consequent tendency to injure or break the cover. The free ends of the pins or spurs H are spaced from the edge of the casing opposite that to which they are attached, so as to enable the papers to be conveniently inserted thereon, and the clamping-piece, when turned back into the position shown in dotted lines in Fig. 2 off from the pins or spurs, is adapted to form a guide for the edges of the papers, stops f^2 being struck up from the clamping-piece for that purpose, as is common.

What I claim is—

1. The temporary binder comprising the casing having its ends provided with bearing-pieces adjacent to their inner faces, the said bearing-pieces being provided with slots which extend from the edges of the bearing-pieces toward the central portions and thence toward the edge from which they started, and clamping-pieces pivotally secured within said slots, substantially as set forth.

2. In a temporary binder, the combination, with the casing having a swinging clamping-piece pivotally secured to its ends and provided with one or more cam or crank portions for operating it, of a spring seated in the casing with its free end in engagement with the crank portion, the end of said spring being curved partially around the cam or crank portion to change the direction in which the pressure is exerted as the clamping-piece swings toward the edge of the casing, substantially as set forth.

3. In a temporary binder, the combination, with the casing and the swinging clamping-piece provided with openings for the reception of the retaining pins or spurs, of retaining pins or spurs secured to the side of the casing and offset therefrom at the upper or outer edge of the casing, leaving a space between their backs and the edge of the casing for the free edge of the clamping-piece, substantially as set forth.

WILLIAM S. GRAY.

Witnesses:
FREDK. HAYNES,
GEORGE BARRY.