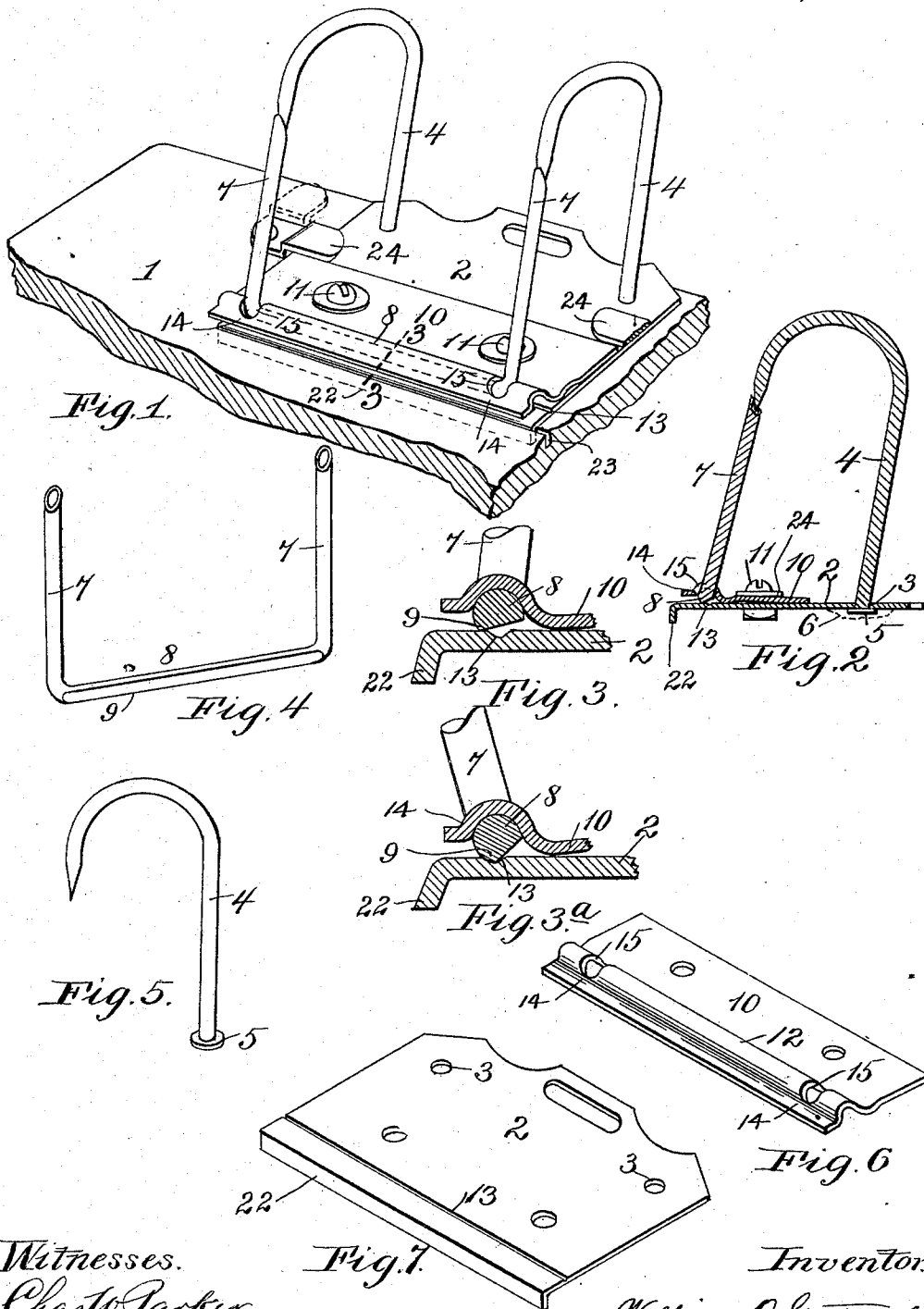


(No Model.)

W. O. GOTTWALS.
BILL FILE.

No. 527,277.

Patented Oct. 9, 1894.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM O. GOTTWALS, OF WASHINGTON, DISTRICT OF COLUMBIA.

BILL-FILE.

SPECIFICATION forming part of Letters Patent No. 527,277, dated October 9, 1894.

Application filed May 2, 1894. Serial No. 509,815. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. GOTTWALS, a subject of the Queen of Great Britain, who have declared my intention to become a citizen of the United States of America, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Bill-Files, of which the following is a specification.

My invention relates to that class of bill-files which comprise a file-board and arches secured thereon and adapted to hold letters, bills and other papers by passing through perforations therein, said arches being composed of stationary arch-members, and movable arch-members, the separation of these parts being adapted to permit the impaling or placing of papers on the arches.

It is the object of this invention to greatly simplify and cheapen the construction of the file, both by reducing the number of parts of which it is composed and by so shaping the parts that they may readily be manufactured with few operations.

To these ends an important feature of my invention consists in so shaping the spring which actuates the movable and oscillating arch-members that it forms a concave bearing for the supporting-bar of said members whereby the latter is held in place against the flat top surface of the base-plate and the arch-members directed in their oscillation, the said bar being at the same time formed with an eccentric or cam-portion which rests upon said flat surface of the base-plate and causes the spring to hold the arch-members in contact or apart.

Such being the general nature of my invention I have shown in the accompanying drawings means for carrying it into practical effect without limiting my improvements in their useful applications in the particular constructions which, for the sake of illustration, I have delineated.

In said drawings:—Figure 1 is a perspective view of a portion of a bill-file embodying my improvements. Fig. 2 is a longitudinal sectional view through one of the arches. Fig. 3 is a sectional view on a larger scale, on line 3—3, Fig. 1. Fig. 3^a is a similar view with the parts in a different position. Fig. 4 is a perspective view of the movable arch-

members. Fig. 5 is a perspective view of one of the fixed arch-members. Fig. 6 is a perspective view of the combined spring and bearing-plate for the movable member. Fig. 7 is a similar view of the base-plate.

Referring to the drawings, 1 is a file board of wood, book-binders' board, or other suitable material. To this board is secured a base-plate 2 having perforations 3. Through the latter pass the stationary arch-members 4, the lower ends of which have flat heads 5 adapted to engage and lie close upon the bottom of the base-plate.

6 indicates a film, sheet or body of solder overlying the head 5 and adhering to the bottom of the base-plate. This makes a very rigid and durable fastening for the fixed arch-members, enabling a relatively thin base-plate to be employed.

7, 7 are the movable arch-members, which are the straight impaling pins or receiving wires as illustrated. These movable members are formed with or attached to a transverse rocking bar 8 which is provided with a downwardly extending cam or eccentric projection 9, preferably made by flattening said bar 8 on the under side. The projection 9 bears upon the base-plate and causes the axis of the bar 8 to rise as the movable arch-members are rocked.

10 is a spring plate, secured to the base-plate by screws, bolts or rivets 11 and bent to form a transverse bearing 12. The latter is adapted to receive the bar 8 and is lifted thereby as the bar turns and its axis rises as aforesaid. The pressure of the spring-bearing consequently tends to keep the flat face of said bar in engagement with the base-plate, or as nearly so as may be, in which position of the bar 8 the ends of the movable arch-members are in place against the ends of the corresponding fixed members. When the bar 8 is turned to carry the movable members sufficiently away from the fixed members, the projection or edge will be directly between the axis of the bar 8 and the base-plate and upon what may be termed the dead center, and will be so held by the pressure of the bearing 12 without tendency to move in either direction. I prefer to cause the movable arch-members to stop readily in this position by forming in the base-plate a trans-

verse groove 13, into which the edge 9 will come when the arches have been sufficiently separated. A stop may also be formed, in conjunction with or without the use of the
5 groove 13 by forming the plate 10 with portions or stops 14, situated in front of the lower ends of the movable arch-members and adapted to arrest the latter when sufficiently opened. The result is conveniently attained
10 by perforating or notching the plate 10 at the ends of the bearing 12, as shown at 15, through which perforations or notches said arch-members are passed as the parts are assembled.

By the above described construction, I have
15 lessened the necessary parts of the device without impairing its efficiency, and caused the bearing plate which contains the transverse axis of the movable arch-members to furnish the spring pressure for the control
20 of such members. A great economy in the manufacture of the bill-file is thus effected.

While various means may be employed to secure the paper-holding device to the file-board, I prefer to effect its attachment by a
25 flange 22 formed on the edge of the base-plate 2 and adapted to enter a groove 23 in the file-board, thus keeping the plate 2 from dis-

placement in directions parallel with the board.

24 indicates buttons pivoted on the file-board and adapted to be turned to overlap the side edges of the base-plate, so as to hold the latter upon the surface of the board.

I claim—

In a bill file the combination with a base plate, of curved arch-members fixed thereon and constituting the transfer wires, movable arch-members constituting the receiving or filing wires, a transverse rock-shaft flattened on its under side to form an eccentric portion
35 which acts on the top of said plate and carrying said movable arch-members, and a spring formed with a concavity on its under side, secured on the top of said plate over the rock-shaft and engaging the upper side of the latter in said concavity to form an upwardly
40 yielding bearing for the shaft, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two witnesses.

WILLIAM O. GOTTWALS.

Witnesses:

H. N. LOW,

CHAS. W. PARKER.