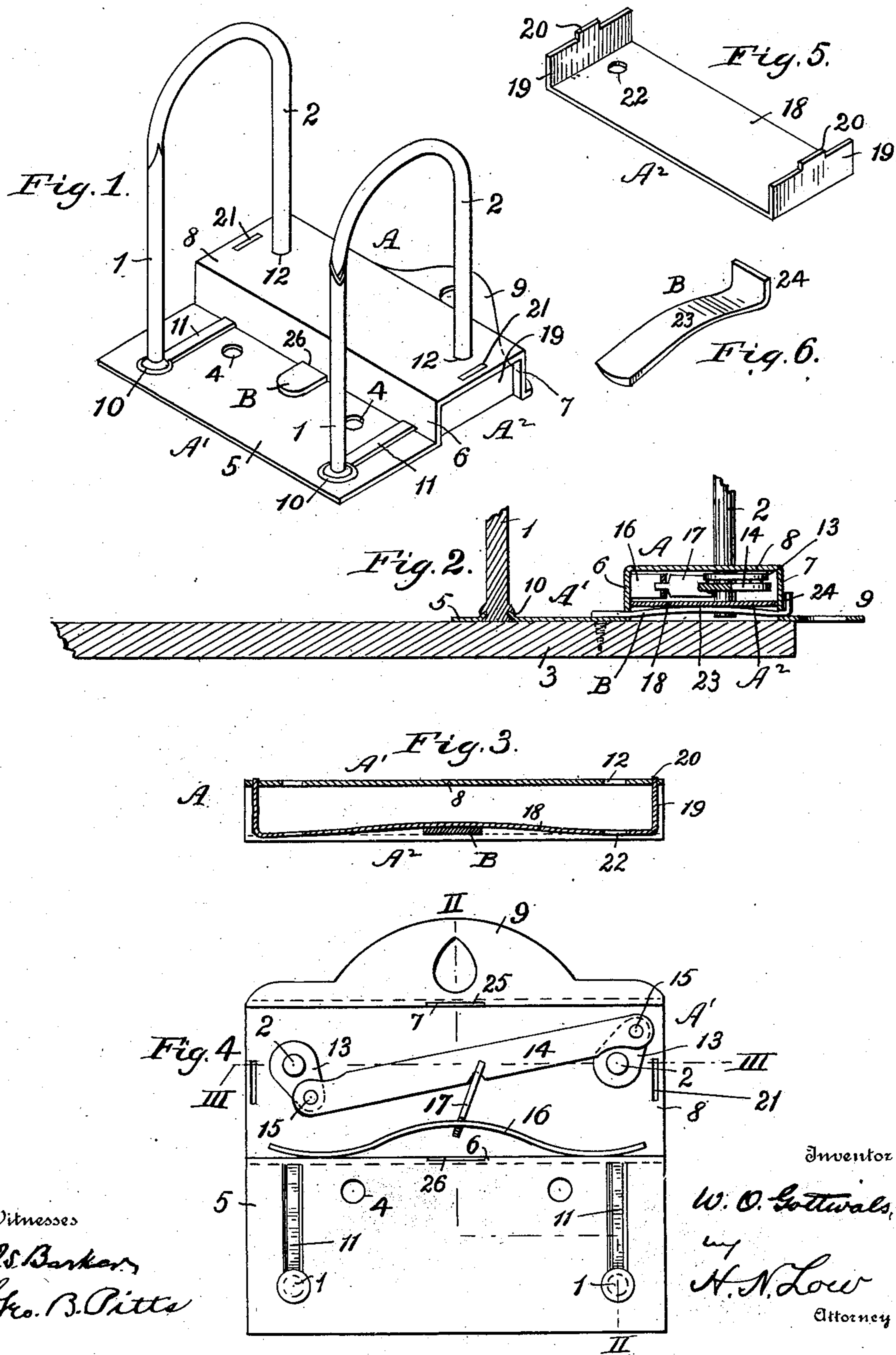


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W. O. GOTTWALS.
LETTER OR BILL FILE.
APPLICATION FILED FEB. 10, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

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

LETTER OR BILL FILE.

SPECIFICATION forming part of Letters Patent No. 747,416, dated December 22, 1903.

Application filed February 10, 1903. Serial No. 142,781. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. GOTTWALS, a citizen of the United States, residing at Washington, in the District of Columbia, have
5 invented certain new and useful Improvements in Letter or Bill Files, of which the following is a specification.

My invention relates to that class of bill holders or files known as "arch files," on
10 which the letters or papers are held on arches or wires composed of separable members. One member of each arch is movable to allow the impaling or removal of the papers. In the most approved type of such files two
15 arches are provided, the movable members of which are pivotally mounted and connected by suitable mechanism to move together both in opening and closing the arches. An example of such a file and an efficient mechanism of the kind referred to is found in
20 my Patent No. 554,261, dated February 11, 1896, and my present invention may be considered as an improvement on such patented construction developed by the requirements
25 of manufacture.

The present improvement relates to the plate and the box or case which serve, respectively, for the pivotal support of the movable arch members and to contain their connecting mechanism; and it consists in the
30 parts and combinations thereof hereinafter set forth and claimed.

In order to make my invention more clearly understood, I have shown in the accompanying drawings means for carrying the same
35 into practical effect without limiting my improvements in their useful applications to the particular construction, which for the sake of illustration I have delineated.

40 In said drawings, Figure 1 is a perspective view of a portion of an arch file embodying the invention. Fig. 2 is a sectional view of the same applied to a file-board in line II, Fig. 4. Fig. 3 is a sectional view on line III, Fig. 4, showing the box alone. Fig. 4 is a rear
45 view of the arch base and casing, the rear member of the casing or box being removed. Fig. 5 is a perspective view of the rear member of the casing. Fig. 6 is a perspective
50 view of the key.

Referring to the drawings, 1 indicates the stationary arch members or impaling-pins,

and 2 the pivoted and movable arch members or transfer-wires on which the papers may be thrown back from the pins 1 when the arches
55 are closed.

A' is the front member of the combined base-plate and box A, made of sheet metal, preferably cut into the form of a suitable
60 blank and stamped or pressed by dies into the shape shown. The part A' is adapted to be secured to the file-board 3, as by screws through the apertures 4, and comprises a front plate 5, casing sides 6 and 7, casing-top
65 8, and suspending-plate 9. The pins 1 are at their bases riveted within stamped-up bosses 10 of the plate 5. From the bases of these pins and across the lines of bending strain of the plate 5 to the side 6 extend
70 stamped-up ridges 11.

12 indicates bearing-apertures in the top 8, in which are pivotally mounted the arch
75 members 2, so that they may be separated from or engaged with the pins 1 by turning in said apertures.

The connecting mechanism comprises oppositely-extending crank-arms 13, fixed on the members 2, and a connecting-rod 14, pivoted to the cranks at 15.

16 is a spring bearing against the casing
80 side 6 and acting on the rod 14, through a pin or bar 17, in a known manner and substantially as set forth in my said patent, to hold the arch members 2 in either their closed or open position. The bases of the members
85 2 and the parts 13, 14, 16, and 17 are situated within the box A. The rear member A² of said box or casing consists of sheet metal cut and stamped to the shape shown in Fig. 5 and having a casing back or bottom portion
90 18, which is between the parts 5 and 9, and having casing ends 19. The said ends 19 are formed with tongues 20, which engage the top 8 by apertures 21 in the latter when the member A² is fitted neatly between the sides
95 6 and 7. The back 18 is formed with bearing-apertures 22 in line with the bearings 12 and adapted to fit over the ends of the arch members 2 when the parts are assembled and keep said arch members in proper alignment.
100

For certainty in engaging the apertures 22, the plate A² being of thin metal, the lower ends of the wires 2 are made of a length to

pass fully through the plate, and to avoid boring the board 3 to accommodate the ends of these wires the ends 19 are of such length as to bring the back 18 above the plane of the plates 5 and 9, as seen in Fig. 2.

B is a transverse key, preferably in the form of a spring having a bend 23 and end flange 24. This key is adapted to pass through slots 25 and 26 at the bottoms of the sides 7 and 6, with its end flange engaging one of said sides. When in such position, its convexity or bend 23 is arranged to oppose the back 18 and hold the casing members A' and A² together with a strong pressure. This construction effects a marked economy in the manufacture of the file, allowing the arch-supporting and mechanism-containing casing and base-plate to be very simply and cheaply made and readily assembled, so that all parts will come into proper positions and relations with the minimum of fitting and adjustment. The parts can be more readily and cheaply assembled than if screws or solder were employed to unite the casing parts and also gives convenient access to the interior of the casing for readjustment or repair of the mechanism.

What I claim is—

1. In a file having paper-holding members or wires, the combination, with such wires, of a base-plate and casing having separate members, both acting to support said wires at different points, and a transverse key separably uniting the casing members, substantially as set forth.

2. In a file having pivoted and movable paper-holding members or wires, the combination, with such wires, of a base-plate and casing having separate members, a transverse key separably uniting the casing members, and connecting mechanism uniting said wires and situated in said casing, substantially as set forth.

3. In a file the combination of paper-holding wires, a base-plate and casing supporting said wires and having separate members, and a transverse key separably uniting the casing members, substantially as set forth.

4. In a file the combination of paper-holding wires, a base-plate and casing supporting said wires and consisting of separate members, the front member of the plate being shaped to constitute the plate 5, the casing sides 6 and 7, and the top 8, and the rear member being shaped to constitute the back 18 and the casing ends 19, means for uniting

said plate members, said connecting mechanism for said wires situated in said casing, substantially as set forth.

5. A base-plate and casing for arch files consisting of a front plate of sheet metal bent to form the base-plate proper and the sides and elevated top of the casing, and a rear plate bent to form the back and ends of said casing, and means for uniting said front and rear plates, substantially as set forth.

6. A base-plate and casing for arch files adapted to support the paper-holding wires and to contain their connecting mechanism, the same consisting of two opposing plates shaped to form a hollow box, and a spring-key separably uniting said plates, substantially as set forth.

7. The combination of the paper-holding wires, the front plate A', the opposing rear plate A², and the transverse spring-key engaging one of said plates by its ends and having the bend 23 engaging the other of said plates, substantially as set forth.

8. A base-plate and casing for arch files consisting of a front of sheet metal bent to form the base-plate proper and the sides and elevated top of the casing, a rear plate forming the back of the said casing, one of said plates being cut and bent to form casing ends, separate from said sides, means for uniting said front and rear plates, and paper-receiving wires movably mounted on said casing, substantially as set forth.

9. In an arch file the combination of the plate A' bent to form the plate 5 and the elevated top 8, the plate A² bent to form the back 18 and the ends 19, the said back being arranged above the plane of the plate 5, the wires fixed on the plate 5 and the movable wires pivoted in the top 8 and passing through the back 18, substantially as set forth.

10. In a file having movable paper-holding members or wires, the combination, with such wires and as a support for the same, of a base-plate and casing having separate members, and a key arranged parallel with said plate and across and beneath one of said separate members and separately uniting the casing members, substantially as set forth.

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

WILLIAM O. GOTTWALS.

Witnesses:

H. N. LOW,

M. F. CRENSHAW.