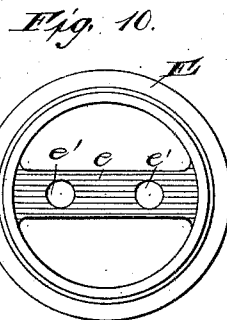
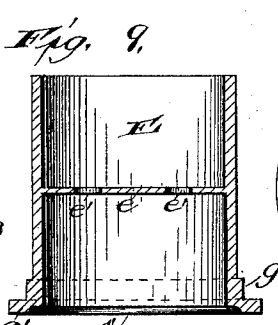
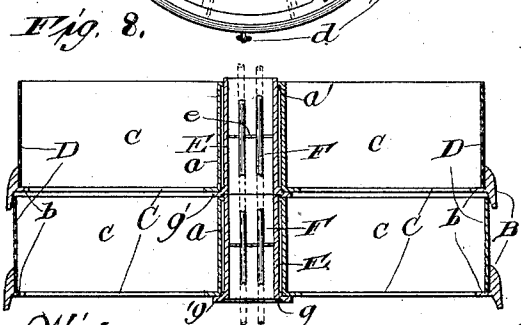
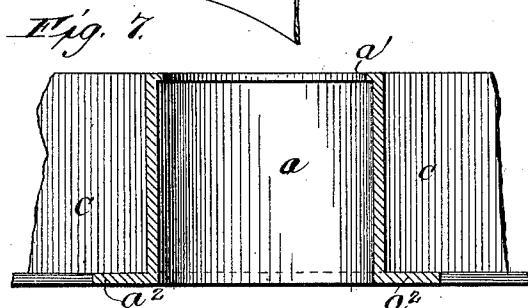
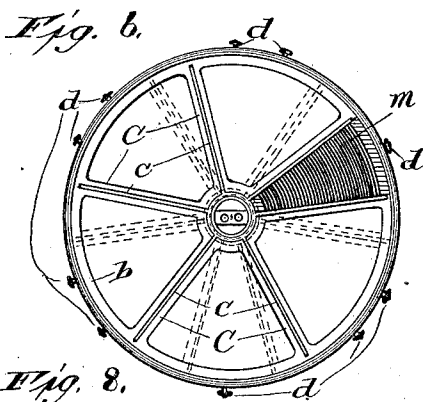
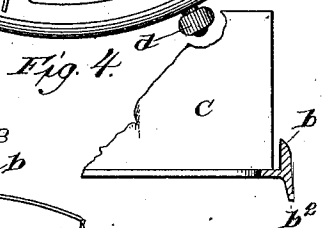
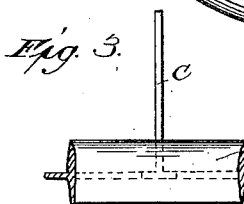
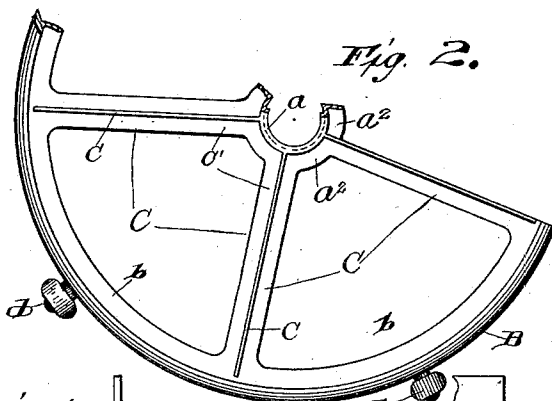
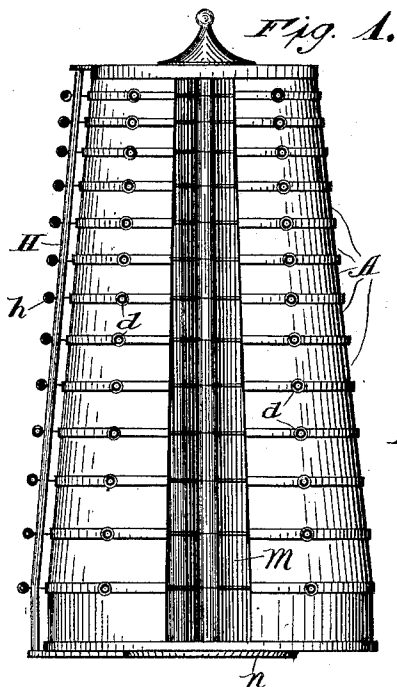


(No Model.)

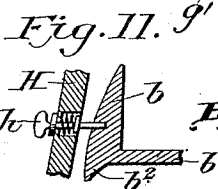
H. WESTPHAL.
SCREW CASE.

No. 465,621.

Patented Dec. 22, 1891.



Witnesses,
Chas. C. Gordon,
Ruth S. Gordon



Inventor,
Henry Westphal

By Chas. C. Tillman,
Atty.

UNITED STATES PATENT OFFICE.

HENRY WESTPHAL, OF CHICAGO, ILLINOIS.

SCREW-CASE.

SPECIFICATION forming part of Letters Patent No. 465,621, dated December 22, 1891.

Application filed June 4, 1891. Serial No. 395,145. (No model.)

To all whom it may concern:

Be it known that I, HENRY WESTPHAL, a citizen of the United States, residing in Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Screw-Cases, of which the following is a specification.

My invention relates to improvements in screw-cases; and it consists in certain peculiarities of the construction and in the novel arrangement and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation of my case as it appears when complete and ready for use. Fig. 2 is a plan view of a portion of one of the revolving frames. Fig. 3 is a front view of a section thereof. Fig. 4 is a side view of the same. Fig. 5 is a view of a portion of one of the exterior bands or parts of the frame. Fig. 6 is a plan view of a portion of the case. Fig. 7 is a horizontal sectional view of the central portion of one of the frames. Fig. 8 is a horizontal sectional view of two of the frames as they appear when in place and ready for use. Fig. 9 is a vertical sectional view of one of the supporting tubes or spindles. Fig. 10 is a plan view of the same, and Fig. 11 is a sectional view in detail of a portion of the locking device.

Similar letters refer to corresponding parts throughout the different views of the drawings.

A represents a series of circular frames, each of the same form and of like construction, but when placed in position gradually diminishing in circumference from the bottom of the case to the top thereof, as seen in Fig. 1. The central part of each of the frames A is formed or provided with a tubular bearing a , having at its top an inwardly-extending annular flange a' and at its bottom an outwardly-extending one a^2 .

Extending from the flange a^2 to the rim B of the frame and connecting the two together are a number of arms or spokes C, which are formed or provided on their upper surfaces

with an upright piece c , which piece is preferably connected at its inner end to the bearing a , and extends outwardly to near the rim B, yet allowing a little space between them, as seen in Fig. 4, for the reception and retention of the band or external wall D of the frame.

It will be seen in Figs. 1 and 6 that the frames A are not complete circles, but that each one has a segment or portion thereof removed, as at m . On each side of the pieces c the arms C are provided with ledges c' , upon which the sides of the floors of the frame may rest or be secured, the outer portion of said floor resting on the ledge b of the rim B, which rim has an upwardly-extending flange b' for retaining the band D, and a downwardly-extending one b^2 , which is slightly beveled outward to fit over the top of the band of the lower frame.

From the above description it will be understood that when the band D, which is usually a piece of metal of equal height with the bearings a , is placed and secured within the space between the end of the pieces c and the flange b' , the frame A will be divided into a number of compartments, which are made ready for use by laying a floor to each, as above explained. To the outside of the rim B, about midway between the walls c of each compartment, is secured a knob d for revolving the frame.

E is a series of supporting tubes or shafts, upon which the frames A are mounted and revolve. Each one of these tubes is similar in size and form and they are provided at about their middle with a cross-piece e , having holes e' , through which are passed rods F for joining them together and to prevent them turning. Near the bottom of each of the tubes E is formed a shoulder g , and just below said shoulder an annular flange g' , upon which rests the lower part of the bearing a when the frame is in position.

By reference to Figs. 8 and 9 it will be seen and understood that when the tube E is placed in the bearing a the shoulder g and flange a' only will contact with the sides of the bearings a and tubes E, and will thereby lessen the friction incident to the revolution of the parts. It will also be seen that the bottoms of the tubes E are formed with annular grooves

h' , into which the top of the lower tube fits, and thus makes the connection of the series of tubes more secure.

Secured to the side of the top and bottom of the case is a rod H, which is provided at proper points to engage the frames A with a number of spring-bolts h or similar means for automatically holding the frames in a proper position and yet permitting them to be turned when desired.

The operation of my case is as follows: The tubes E are placed in the bearings a and the frames A placed one on the other and secured together by the rods F, passed through the holes e' in the pieces e of the tubes E. That portion of the frames from which the segments have been removed is brought into alignment, when the frames may be locked or secured by means of the spring-bolts. When in this position, each of the compartments is closed, and in order to open them it is only required to turn the frames to the open space m , as is apparent.

In the drawings I have shown the central supporting-rod constructed of a series of short tubes, which are provided with cross-pieces e , through which is passed the rods F for securing them together; yet I do not desire to be confined to the use of the tubes with the cross-pieces, as I may dispense with said cross-pieces and secure the tubes together by means of a single rod, which is passed through the entire series of tubes and secured at the bottom to a plate n , and provided at the top with a nut (not shown) for bolting the tubes together. It is also shown in the drawings that the band or external wall D is secured between the inner surface of the flange b' and the outer ends of the pieces c , yet I may extend the pieces c to the rim B and secure the band D to the outer surface of the flange b' , as is apparent.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a screw or bolt case, the combination of the supporting-tube E, composed of two or more pieces, with the frames A, having a segment thereof removed, and the bearings a , the rims B, having flanges b' b^2 and ledges b , the arms C, having the ledges c' and pieces c , the rod H, having the means h for securing the frames, all constructed, arranged, and operating substantially as set forth.

2. In a screw or bolt case, the combination of a series of central supporting-tubes E, having shoulders g , flanges g' , grooves h' , and pieces e , having holes e' , with a series of frames A, having a segment thereof removed, and the bearings a , having the flanges a^2 , the rims B, having the flanges b' b^2 and ledges b , the arms C, having the ledges c' and pieces c , the rod H, having the means h for securing the frames, and the rods F, all constructed, arranged, and operating substantially as and for the purpose set forth.

3. In a screw or bolt case, the combination of the frame A, composed of the bearings a , the arms C, having the ledges c' and pieces c , the rims B, having the flanges b' b^2 and ledges b , all cast in one piece and having a segment thereof removed, with the sectional central supporting-tube E, the continuous band or wall D, and the outer rod H, having the means h for securing the frames, all constructed, arranged, and operating substantially as shown and described, and for the purpose set forth.

In testimony whereof I have hereunto set my hand, at Chicago, Illinois, on this 28th day of May, 1891.

HENRY WESTPHAL.

In presence of—

CHAS. C. TILLMAN,
F. J. STRATTON.