

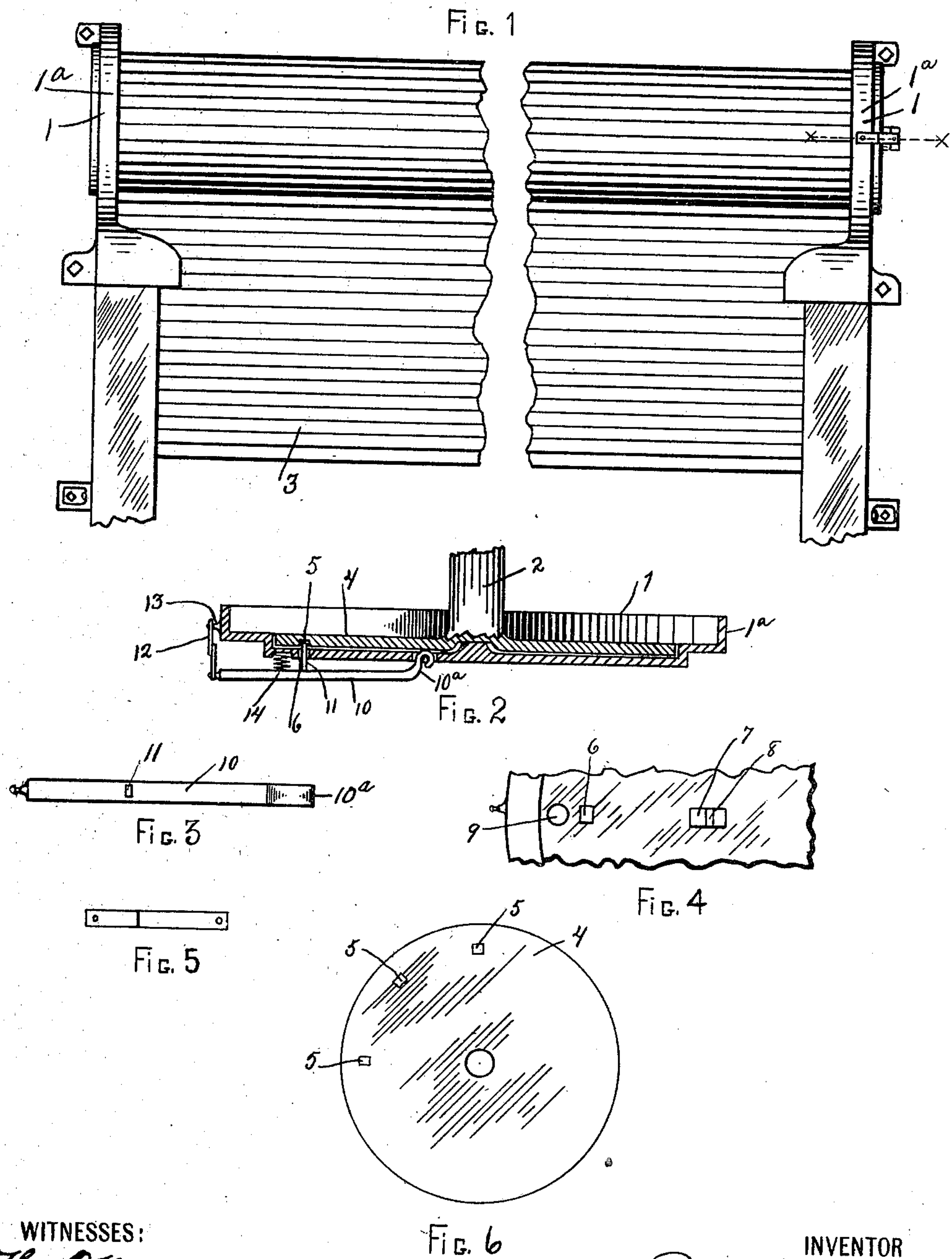
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P. EBNER.
FIRE SHUTTER RELEASING MECHANISM.

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NO MODEL.



WITNESSES:

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FIRE-SHUTTER RELEASING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 735,227, dated August 4, 1903.

Application filed December 15, 1902. Serial No. 135,180. (No model.)

To all whom it may concern:

Be it known that I, PETER EBNER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Fire-Shutter Releasing Mechanism, of which the following is a specification.

My invention relates to the improvement of automatic releasing mechanism for fire-shutters; and the objects of my invention are to provide, in conjunction with that class of fire-shutters which are adapted to be rolled upon a shaft above a window or door opening, improved means whereby the shutter will be released and permitted to unroll to a closed position over the window or door opening through the action of heat and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of a fire-shutter, showing the same partly unrolled and having my improved releasing device connected therewith. Fig. 2 is an enlarged transverse section on line *xx* of Fig. 1 with the shutter removed. Fig. 3 is a detail view in elevation of a locking-bar which I employ in the manner hereinafter described. Fig. 4 is a view in elevation of a portion of the end face of one of the brackets with the shutter-locking parts removed. Fig. 5 is a detail view in elevation of one of the fusible bars, and Fig. 6 is a view in elevation of the enlarged head of the shutter-supporting shaft.

Similar numerals refer to similar parts throughout the several views.

1 represents shutter-supporting brackets which are designed to be secured to and project from a wall or framework adjacent to the upper portion of a window or door opening. Each of these brackets has its upper or D-shaped head portion formed with a rim or side flange 1^a, the lower portion thereof being formed with an outlet-channel, through which the shutter is adapted to pass in the usual manner. Extending horizontally between these bracket-heads and having its ends suit-

ably pivoted therein is a shutter-carrying shaft 2, on which is adapted to be wound a desirable construction of metallic shutter 3 of that class which is formed of slats hinged one to the other. Each of the shafts 2 has formed or connected with each of its ends a disk-like head 4, which is adapted to turn loosely in an offset of the bracket-head, as shown more clearly in Fig. 2. The outer face of one of the shaft-heads 4 is provided at intervals near its periphery with the desired number of sockets 5, and through the corresponding or adjacent bracket-head 1 is formed an opening 6, which is adapted when said shaft-head is rotated to be made to register with one of the openings 5. Between the opening 6 and the center of the head of the bracket is formed a slightly-elongated opening or slot 7, which is intersected by a transverse fixed pin 8. On the outer side of the opening 6 the end face of the bracket is formed with a suitable spring-receiving socket or depression 9.

10 represents a locking-bar the intumed inner hook end of which, as indicated at 10^a, is adapted to be hooked into engagement with the pin 8, which intersects the opening 7. This bar 10 is provided near the center of its length on its rear side with a projecting pin 11, which is adapted to enter the opening 6 and engage one of the sockets 5 of the shaft-head 4. The outer end of the bar 10 has connected therewith one end of a facing link or bar 12, the remaining end of which is suitably connected with a projecting stud 13 on the rim 1^a of the bracket-head. Between the bar 10 and the bracket-head is interposed a spring 14, the inner end portion of which is adapted to bear in the socket 9, said spring being adapted to exert an outward pressure on the bar 10. In the construction of the facing bar 12 the same is preferably produced, as shown in the drawings, of two metallic sections the connected end portions of which are overlapped and united by solder or other suitable substance which is readily fusible at a comparatively low heat. It is obvious, however, that said bar 12 may be formed of a single piece of fusible metal.

It will be understood from the drawings that when the outer end of the bar 10 is connected, through the medium of the bar 12, with the pin or stud 13 of the bracket-head the
5 pin 11 will have its inner end within one of the sockets 5 of the shaft-head and that said shaft will thus be prevented from rotation.

My invention is designed to be employed in connection with a shutter such as is shown
10 at 3, which is carried on said shaft 2 and which is sufficiently unrolled therefrom to insure its dropping or unrolling completely therefrom when the shaft-head is released from engagement with the pin 11. It will
15 thus be understood that in case sufficient heat is generated to fuse or melt the material employed in connecting the sections of the bar 12 the pressure of the spring 14 will operate to insure sufficient outward movement of
20 the bar 10 to move the pin 11 out of engagement with the socket of the shaft-head, there-

by automatically releasing said shaft and permitting the shutter to unroll therefrom through the weight of its depending portion.

Having now fully described my invention, 25 what I claim, and desire to secure by Letters Patent, is—

In a fire-shutter releasing mechanism, the combination with brackets and a shutter-carrying shaft having enlarged heads pivoted
30 in said brackets, one of said heads having recesses 5 therein, of a bar 10 hinged at one end to one of said brackets and a fusible bar connecting said bar 10 at its outer end with said
35 bracket, a pin projecting from said bar 10 and adapted to enter an opening in the bracket-head and means for normally pressing the bar 10 outward, substantially as specified.

PETER EBNER.

In presence of—

C. C. SHEPHERD,
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