

(No Model.)

K. BUSSE.
SELF ACTING FIRE GUARD FOR SHAFTS.

No. 545,049.

Patented Aug. 27, 1895.

Fig. 3.

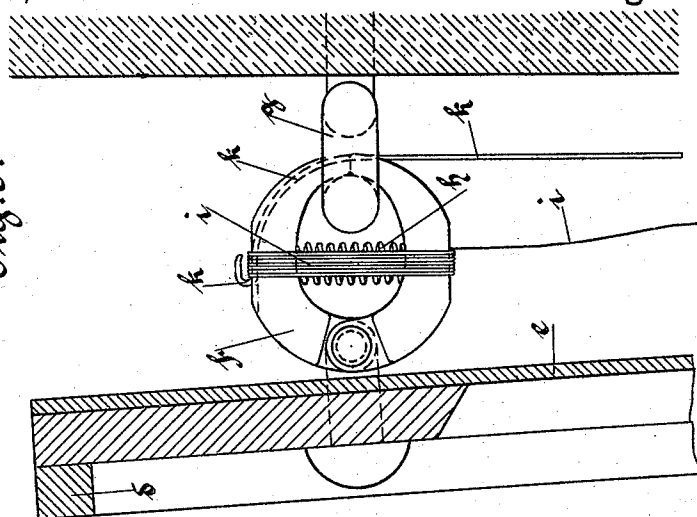


Fig. 2.

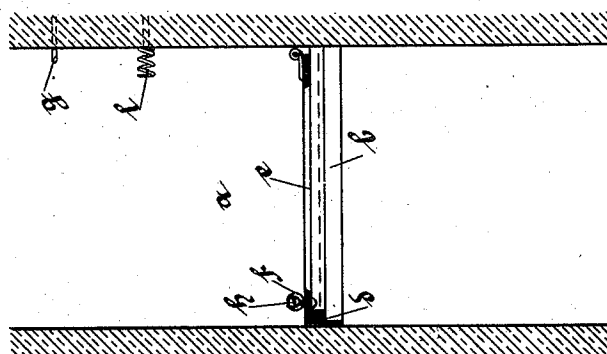
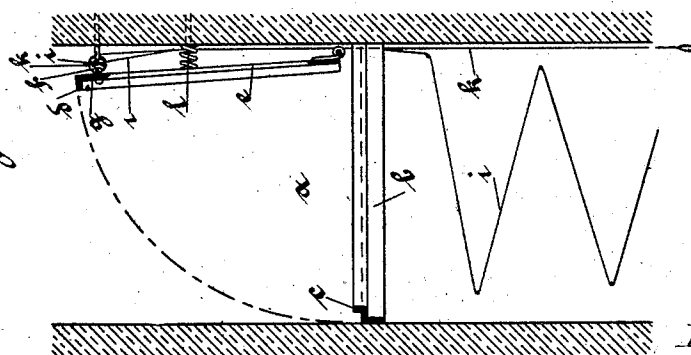


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

KARL BUSSE, OF LÜNEBURG, GERMANY.

SELF-ACTING FIRE-GUARD FOR SHAFTS.

SPECIFICATION forming part of Letters Patent No. 545,049, dated August 27, 1895.

Application filed September 21, 1894. Serial No. 523,714. (No model.)

To all whom it may concern:

Be it known that I, KARL BUSSE, master baker, of Lüneburg, in the Kingdom of Prussia, German Empire, have invented new and useful Improvements in Self-Acting Fire-Guards for Air, Light, and Transport Shafts, of which the following is a specification.

The present invention is a contrivance for the self-acting fire-shutter for air, light, and transport shafts of the various stories on outbreak of a fire.

In the accompanying drawings, Figure 1 is a vertical section through the shaft, (opened;) Fig. 2, a vertical section, (shut;) Fig. 3, a contrivance fixed in working order.

The shaft *a* is provided with an iron frame *b* and an iron trap-door *e*, which, when shut, fits snugly into said frame. Trap-door *e* is usually, as Fig. 1 shows, opened. It is fixed in this position by a pair of tongs or pinchers *f*, which grasp a ring *g*, fixed to the edge of the shaft. Between the cheeks of the tongs *f* a spiral spring is arranged, which tends to open the tongs. This tendency, however, is frustrated through a silk thread *i* wound several times externally around the tongs. The latter leads to the wall downward and is here and there attached to it. The upper cheek of the tongs *f* is provided at its outer side with a groove. In this lies a wire *k*, which is bent at its upper end around the silk threads and on the outer side leads downward to render possible from there a withdrawal of the thread.

Between the opened door and the wall a spi-

ral spring *l* is arranged, which is somewhat compressed through the door. If fire breaks out at a story, the silk thread, as it is carried to and fro in the shaft several times and moreover moistened with some easily-combustible substance, at once takes fire and quickly burns up to tongs *f* at the top. As silk, as is well known, is completely burned without leaving behind any ash, the resistance which kept the spring *k* up till then in a compressed stretched condition is removed. The tongs *f* are opened by the influence of spring *h*, and the trap-door *e* shuts partly through its own weight and partly through the repulsive action of the spring *l*. If in some way or other the burning of the thread is frustrated, the silk thread *i* can be drawn away by means of wire *k*, and door *e* in this manner can be made to fall.

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

The combination with a pair of jaws attached to a trap-door, and an eye with which the jaws are normally engaged, of a combustible cord wound about said jaws to hold them in their position of engagement.

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

K. BUSSE.

Witnesses:

E. H. L. MUMMENHOFF,
EDUARD SIPP.