(No Model.) 2 Sheets—Sheet 1.

C. E. SANSOUSY.

FIRE ESCAPE.

No. 482,654. Patented Sept. 13, 1892.

Fig 1.

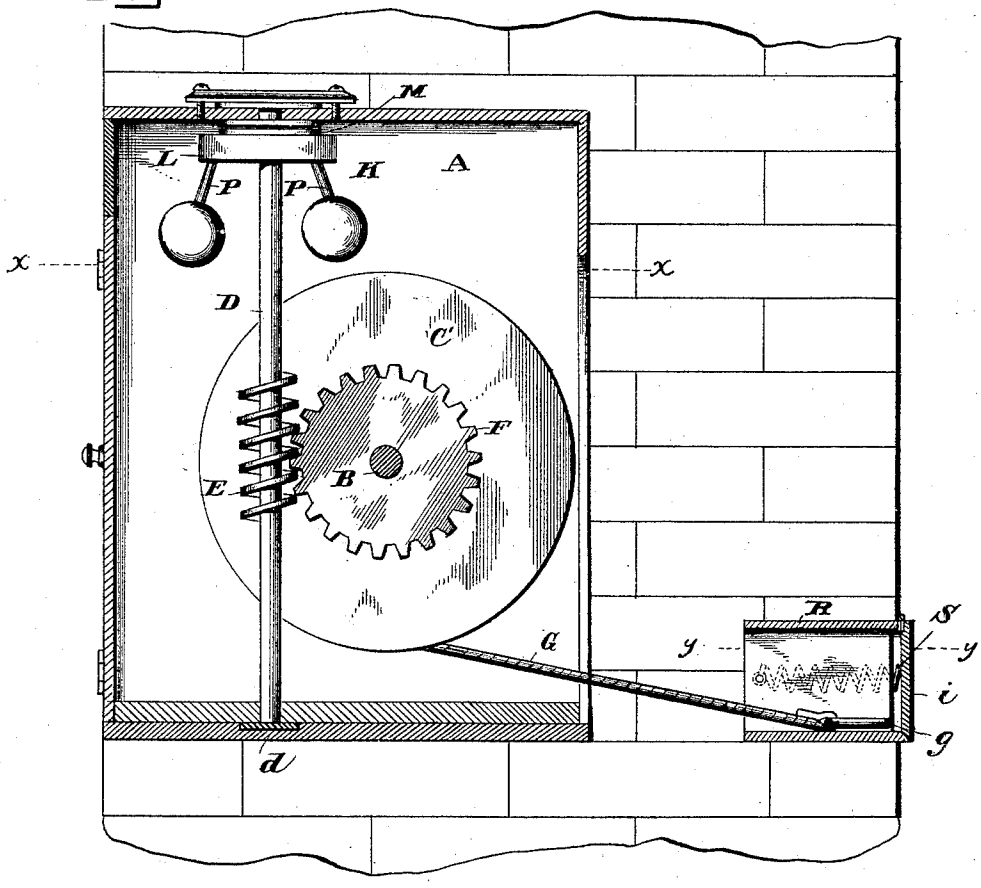
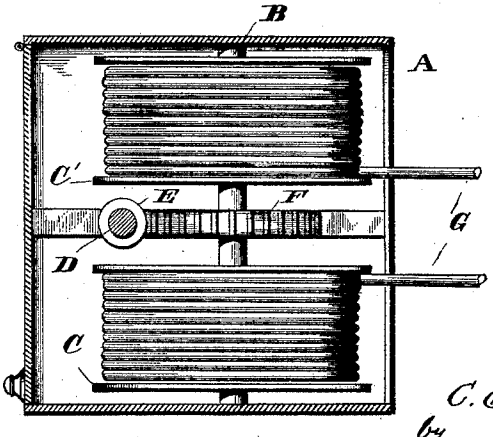


Fig 2.



Witnesses
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George H. Parmelee.

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his Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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FIRE ESCAPE.

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Fig 3

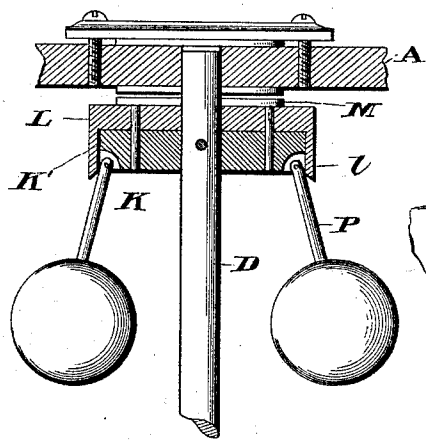


Fig 4

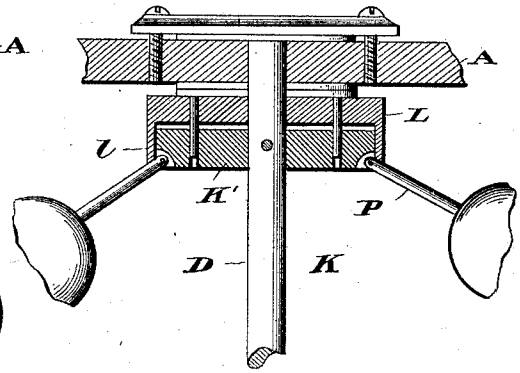
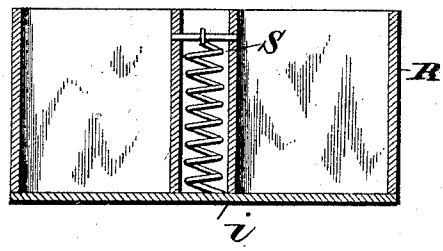


Fig 5



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UNITED STATES PATENT OFFICE.

CHARLES E. SANSOUSY, OF DULUTH, MINNESOTA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 482,654, dated September 13, 1892.

Application filed November 30, 1891. Serial No. 413,564. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SANSOUSY, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Fire-Escapes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical section. Fig. 2 is a horizontal section on dotted line *x x*. Figs. 3 and 4 are enlarged sectional detail views of brake mechanism and governor. Fig. 5 is a horizontal section on line *y y*, Fig. 1.

This invention has relation to certain new and useful improvements in fire-escapes; and it consists in the novel construction and combination of parts, as hereinafter described, and pointed out in the claims.

In the accompanying drawings the letter A designates a suitable box or closure, in the side walls of which are journaled the ends of a transverse bar or shaft B, having journaled thereon the drums or spools C C′, one on either side of the center.

D designates a vertical shaft arranged centrally in the case and provided with suitable bearings *d d* at its upper and lower ends at the top and bottom of said case. The central portion of this shaft carries a worm E in engagement with gear-teeth F on the ends of the axial portions of the drums C C′ or with a gear-wheel on the shaft, as shown and hereinafter described, so that as said drums are turned on the shaft B the shaft D will be turned. The case or closure is designed to be inclosed in the wall of a building near a window or other exit, the drums having wound thereon cables or chains G, which at their free ends extend through the outer wall of the building. To said ends are secured small rings *g*, to which are designed to be attached waistbands or belts, (not shown,) which are placed around the body and secured when the device is to be used. These bands may be permanently attached to the cables or chains; or they may be kept in the box A or in a convenient place from which they can be taken in case of fire, passed around the body, and made fast to the cables.

To retard the revolution of the drums under the action of a descending body, the governor-actuated friction-brake K is provided, comprising a block K′, fast to the shaft and through which the shaft passes. Connected to this block are governor-arms P, which when the shaft is turned are thrown outwardly into engagement with a depending flange *l* on a block L, loosely carried on said shaft. This will force the block L upwardly against friction-disks M in contact with the upper wall of the casing, and thus act to retard the revolution of the shaft.

R is a second and smaller box or closure, which is also inclosed in the wall of the building in alignment with box A and having its outer face *i* flush with the outer wall of the building and preferably painted the same color as that of the wall in order that it may not be apparent from the outside. Said face *i* is hinged to the body of the box, and is normally held closed against the weather by the action of a spring S in said box. The free ends of the cables or chains G are designed to pass through the box R when in use, and the tension of the hinged portion or door on the rope which is being wound on the spool will act as a guide to cause it to be wound properly. The edges of said box against which the rope or cable bears are usually beveled to prevent undue friction and wearing.

If it is not desired to wind one cable while the other is being unwound, both drums may be fast on their shaft and a single gear be provided on said shaft in engagement with the worm E, so that both drums will turn in the same direction and two persons descend at the same time.

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

1. The fire-escape comprising the case or closure adapted to be inclosed in the inner face of a wall or building near an exit thereof, the spools or drums journaled therein, the chains or cables carried thereby, the straps, the vertical shaft carrying a worm in engagement with the gear of said drums, the fric-

tion-brake for said shaft, and the second and smaller case in the outer wall of the building and provided with a spring-actuated hinged face or cover, substantially as specified.

2. In a fire-escape, the combination, with the drums or spools and the ropes or cables carried thereby, the gear, and the vertical shaft having the worm thereon in engagement with said gear, of the block on said shaft, the governor-arms connected to said block, the loose block adapted to be operated by said arms, and friction-disks in contact with said loose block, substantially as specified.

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

CHARLES E. SANSOUSY.

Witnesses:
JOHN PATERSON,
Z. DACUST.