

G. G. PURCELL.  
SHAFT ATTACHMENT.  
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1,415,702.

Patented May 9, 1922.

Fig. 1.

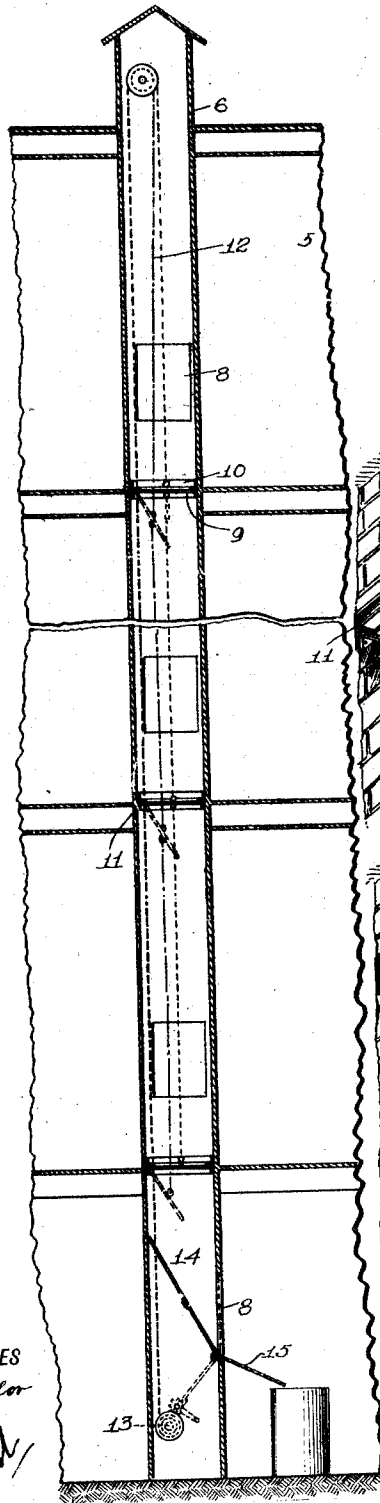


Fig. 2.

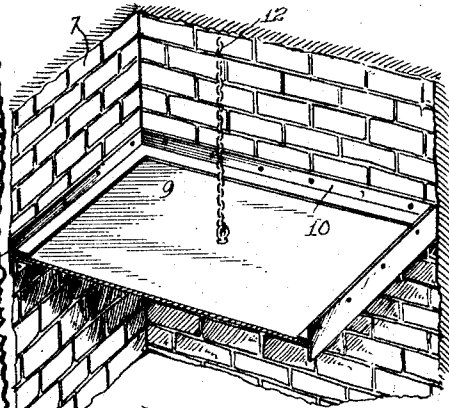
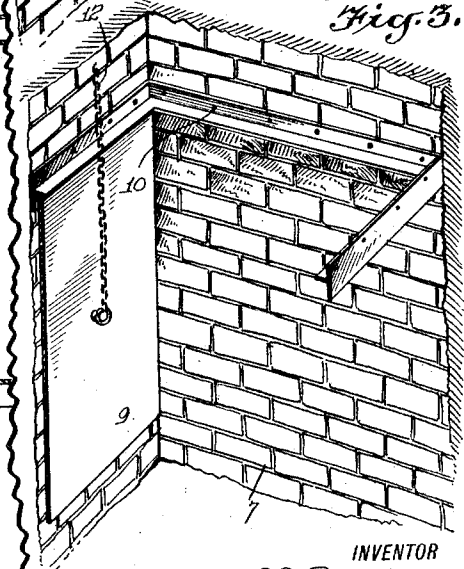


Fig. 3.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## SHAFT ATTACHMENT.

1,415,702.

Specification of Letters Patent.

Patented May 9, 1922.

Application filed March 1, 1921. Serial No. 448,931.

*To all whom it may concern:*

Be it known that I, GEORGE G. PURCELL, a citizen of the United States, and resident of the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented a new and Improved Shaft Attachment, of which the following is a full, clear, and exact description.

My invention relates to a shaft attachment, and aims to provide certain new and useful improvements in connection with a device of this character.

It is a well appreciated fact that it has been a customary expedient to provide a shaft extending throughout the entire length of a building, and having doors in communication with each floor, through which doors waste material may be thrown into the shaft.

It is also well understood in connection with shafts of this character, that fires have often occurred incident to throwing a lighted match or other burning article into the shaft, and in some instances incident to spontaneous combustion.

For the reason that the fire is, in its initial stages, confined to the shaft, a great amount of headway is usually gained before the occupants of the building are aware of its existence, and consequently a large amount of damage is caused.

Aside from the foregoing, it is also difficult to remove large accumulations of waste material which become deposited and packed in the bottom of a shaft of this nature.

With this in view, I have provided a construction in the nature of an attachment to a shaft of the type specified, by means of which primarily, any fire will be confined to a limited area.

A further object of my invention is the construction of a device of the character stated, by means of which the person having charge of the removal of the waste material from the shaft will be able to effect this removal with the expenditure of but a minimum of energy.

Further objects of my invention will appear in the annexed specification, taken in connection with the drawings, which latter present one practical embodiment of my invention, and in which;

Figure 1 is a sectional side view taken through a building and shaft of the type

stated, and showing my improved attachment associated with the latter.

Figure 2 is a perspective view of one unit of my attachment, and showing the same in its normal position, and

Figure 3 is a view similar to Figure 2 but showing the position which the parts assume during the removal of the waste material from the shaft.

In these views it will be noted that the reference numeral 5 indicates a building incorporating a shaft 6, which may be in the nature of a dumbwaiter shaft, and is preferably lined with a fire resisting material, such as 7.

Also, the shaft 6 is provided with openings 8 having any desirable type of closure associated with them, whereby access may be had by the occupants of each floor of the building to the shaft.

Contrary to the conventional construction, however, it will be seen that I aim to provide a number of partitions 9 preferably of metal, which partitions are positioned within the shaft 6, and thus provide compartments or sub-divisions within said shaft. It is to be noted that each of the partitions 9 is to be hingedly secured to the inner face of the shaft, and to provide means permitting of this, and at the same time to form a fire proof closure, I may conveniently utilize sill members 10 corresponding in number to the number of partitions 9 employed.

Each of these sills provides a hinge 11 with which one of the edges of a partition 9 may be associated, and a connecting member, such as a chain 12 serves to interconnect adjacent partitions with each other, and with any suitable type of actuating member such as a drum 13.

Thus the drum 13 may be actuated to effect a simultaneous raising of all the partitions 9 to the position indicated in Figure 2, whereby each of the partitions will form a base capable of receiving the waste material from a floor. Also a baffle 14 is preferably provided adjacent the lower end of the shaft 6, and co-operates with a closure 15 which may be swung to the position indicated in dotted lines so as to close the lowermost opening 8 through which the accumulated material is discharged into any suitable type of receptacle.

It will thus be noted, assuming that the waste material within the shaft 6 becomes

ignited between any two of the partitions 9 that a minimum amount of damage will result and that the fire will be incapable of gaining any great headway in that the same will be confined to the space thus provided.

Further, upon it being desired to empty the shaft 6, this may be accomplished by primarily moving the closure 15 to the position shown in full lines in Figure 1, subsequent to which the drum 13 may be manipulated to permit of the partition 9 swinging downwardly to the position shown in dotted lines in Figure 1. This obviously will result in all of the waste material falling through the shaft 7, which will be diverted by means of the baffle 14 or other element utilized for this purpose.

Obviously numerous modifications of structure might readily be resorted to without in the least departing from the spirit of my invention, which I claim as;

1. A shaft attachment including in combination with a shaft, of a plurality of partitions secured within said shaft and normally extending across and within the same, and means for simultaneously moving said partitions.

2. A shaft attachment, including in combination with a shaft, of a plurality of par-

titions adapted to normally lie transversely of said shaft and extending within the same whereby to form a plurality of compartments, and means for simultaneously moving said partitions.

3. A shaft attachment, including in combination with a shaft, of a plurality of partitions adapted to normally lie in a horizontal plane and to normally extend into said shaft, whereby each forms a base capable of receiving material deposited within said shaft at various levels, and means for moving said partitions.

4. A shaft attachment, including in combination with a shaft, of a plurality of partitions hingedly secured within said shaft, a connecting member extending between said partitions for inter-connecting the same and permitting of a simultaneous movement thereof, and means for moving said connecting member.

5. A shaft attachment, including in combination with a shaft, sills within said shaft, partitions hingedly secured to said sills, and adapted to co-operate with the same to provide substantially fire proof closures, and means for moving said partitions.

GEORGE GERARD PURCELL.