

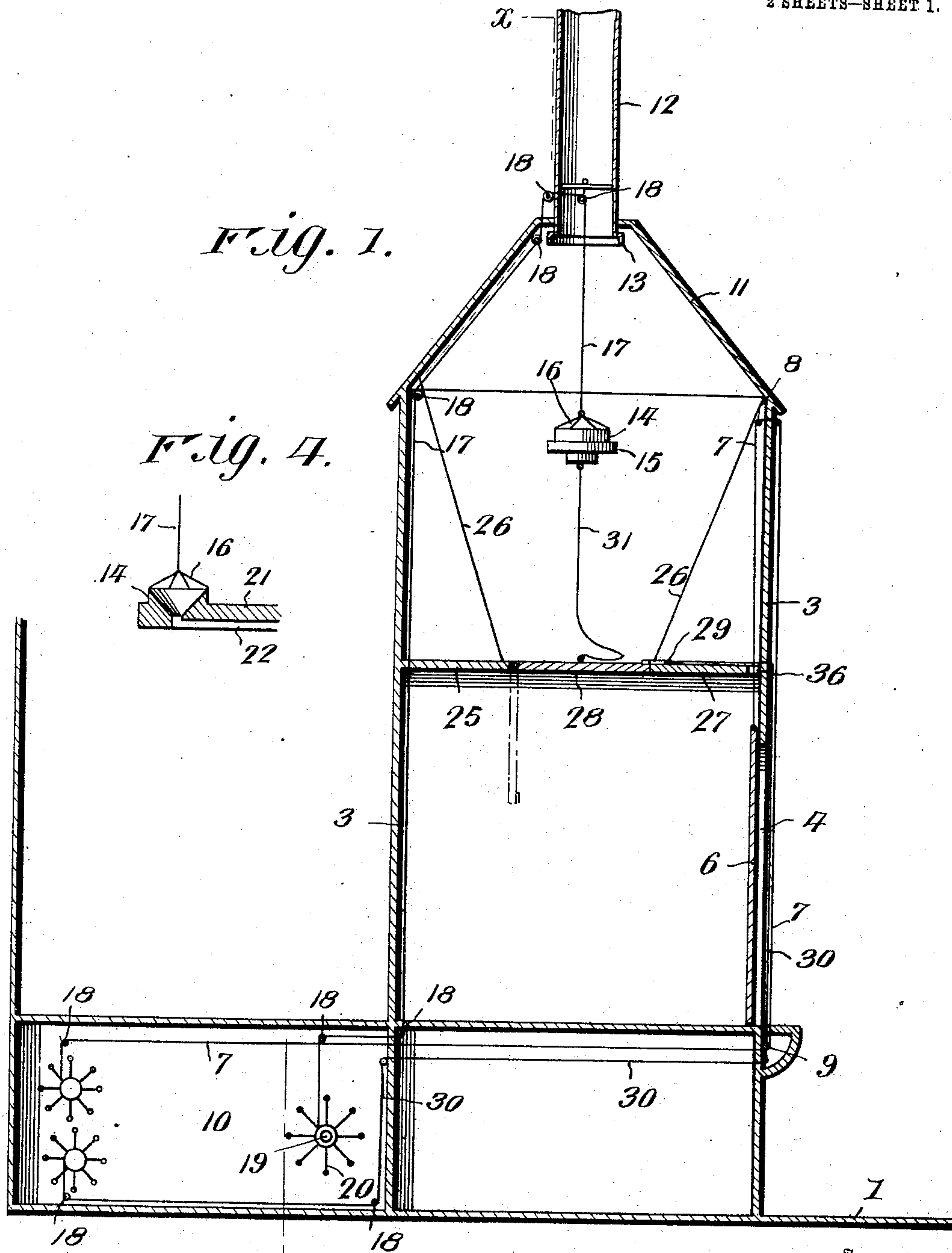
No. 765,600.

PATENTED JULY 19, 1904.

J. SCULLY.
FIREPROOF THEATER.
APPLICATION FILED MAR. 15, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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Arthur S. Lawson

John Scully.

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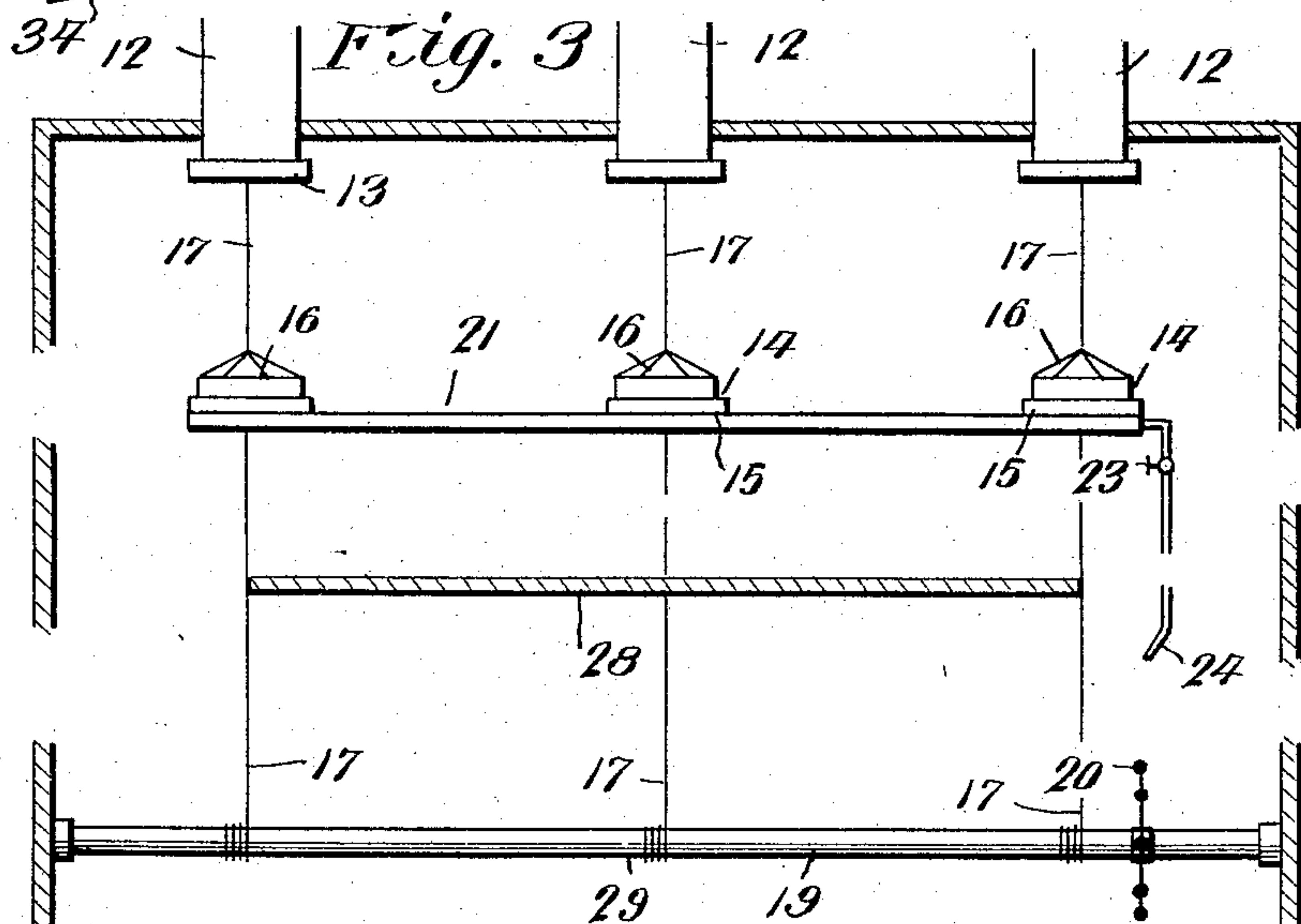
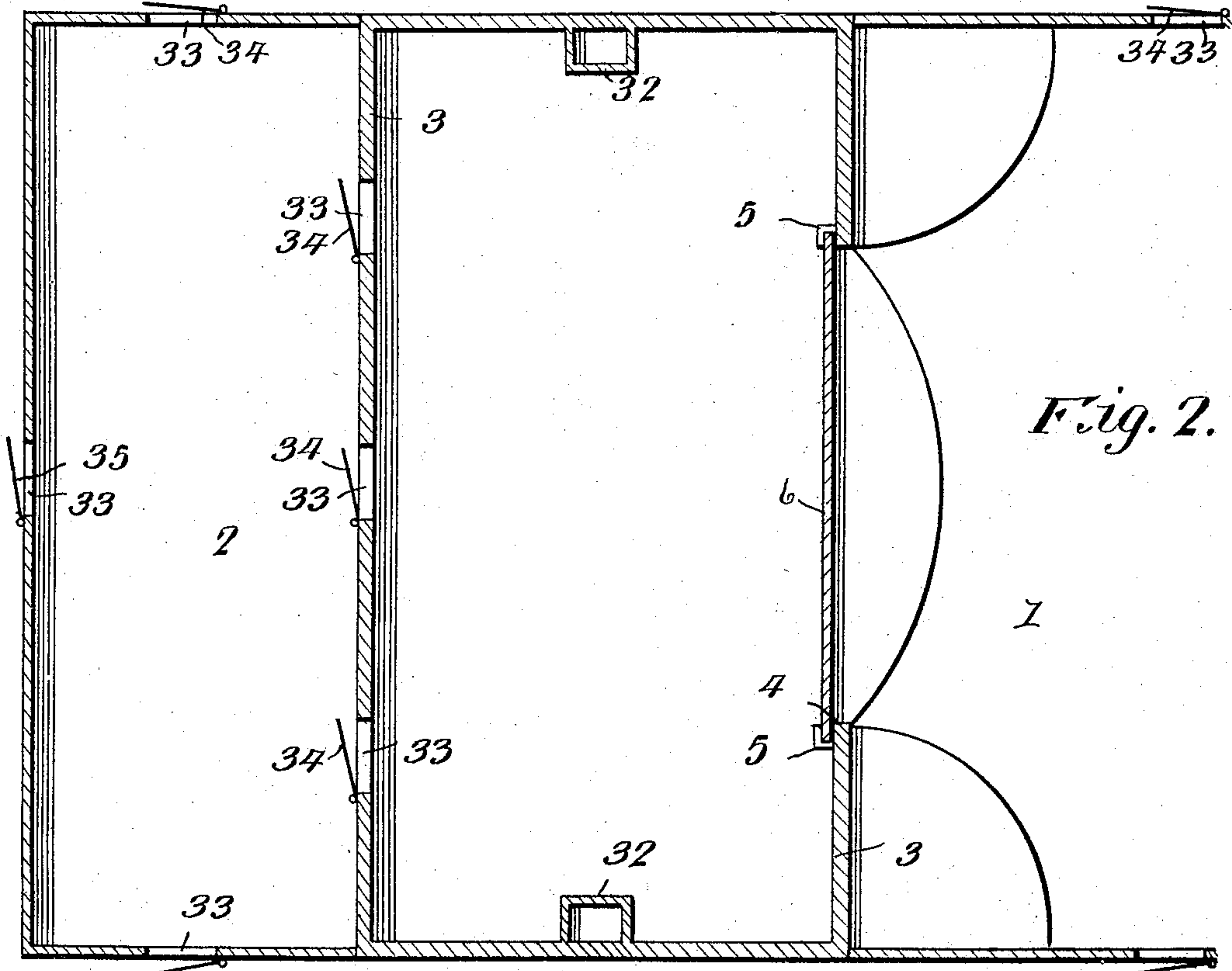
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Witnesses

John Scully
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UNITED STATES PATENT OFFICE.

JOHN SCULLY, OF MINNEAPOLIS, MINNESOTA.

FIREPROOF THEATER.

SPECIFICATION forming part of Letters Patent No. 765,600, dated July 19, 1904.

Application filed March 15, 1904. Serial No. 198,295. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCULLY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented new and useful Improvements in Fireproof Theaters, of which the following is a specification.

My invention relates to new and useful improvements in fireproof theaters, although the same may be utilized with modifications in churches, &c.

The object of the invention is to provide a stage which is built within a fireproof structure at one end of and opening into the auditorium.

A further object is to build a fireproof structure to contain the stage, said structure being in the form of a furnace having outlet-stacks in the top thereof which are normally closed, but are adapted to be simultaneously opened by mechanism provided for that purpose.

A further object is to provide means for ventilating the fireproof structure; and another object is to provide mechanism whereby the interior of the fireproof structure can be completely shut off from the auditorium.

With the above and other objects in view the invention consists of a building having a fireproof structure at one end thereof, said structure being built in the form of a vast furnace and the material used in its construction being such as will resist the fire. A fire-resisting curtain, preferably constructed of steel or similar metal, is adapted to be raised and lowered by suitable mechanism, and extending over the stage proper is a ceiling having a centrally-located movable section which is adapted to be opened downward in the event of a fire, so as to permit the free circulation of air through the ceiling. Outlet-stacks are located in the roof of the fireproof structure and are normally closed by seals of novel construction and which have means whereby the same may be quickly lowered from normal position. The invention consists in so constructing these seals that the same will retain any water which may accumulate within them, and means are provided

whereby this water can be drained from the seals when desired.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described, claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a longitudinal section through the fireproof structure and a portion of the adjoining sections of a theater. Fig. 2 is a horizontal section through the fireproof structure and a portion of the adjoining parts of the theater. Fig. 3 is a vertical section on line *x x*, Fig. 1; and Fig. 4 is a detail view of the seals.

In the drawings like numbers indicate the same parts.

Referring to the figures by numerals of reference, 1 is the auditorium of a theater, and 2 is the property-room, which is arranged at one end of the structure. These two portions may, if desired, be constructed of fireproof material, although this is not absolutely necessary. A fireproof structure 3 is built between the auditorium and the property-room, and the walls thereof are preferably formed of brick and metal or any other suitable fire-resisting material, and this structure extends upward a suitable distance and has an arch formed within the wall opening into the auditorium and along the side walls of which are arranged guides 5. These guides overlap the side edges of a curtain 6, which is preferably formed of steel or other similar material, and the curtain is adapted to be raised and lowered by cables 7, which extend upward therefrom over pulleys 8 and downward under pulleys 9 to a room 10, preferably located under the property-room. The roof 11 of the fireproof structure is inclined upward toward the center, and arranged within the top of this roof are a series of outlet-stacks 12, the lower ends of which project through the roof and are enlarged, as shown at 13. Each of these stacks is normally closed by a seal 14, having an annular flange 15, which is adapted to be seated within the enlarged end 13 of stack 12, and the interior of the seal is concaved, so that a

receptacle is thus formed for any water which may accumulate within the stack. Rods 16 extend from the sides of the seal toward the center thereof and are connected to an operating-cable 17, which is mounted on pulleys 18, one of which is arranged in the center of the stack 12. This cable 17 extends downward into the operating-room 10 and is connected to a shaft 19, which extends from one side to the other of said room and is adapted to be operated by hand-wheels 20 or in any other suitable manner. Each of the seals 14 is provided with an operating-cable 17, and these cables are connected to the shaft 19 at a distance apart equal to the distances between the seals. A cross-strip 21 connects the seals, so that the same will move upward and downward in unison, and secured to this cross-strip is a drain-pipe 22, which communicates with the interior of each seal and has a valve 23 at one end thereof. A hose 24 is connected to said end of the pipe, and when it is desired to drain the seals the valve is opened and water is thus permitted to flow through the hose.

Secured to the rear wall of the fireproof structure at a suitable point above the floor of the stage proper is the rear section 25 of the ceiling. This ceiling is constructed in any preferred manner, and its inner edge is supported by rods or cables 26, which extend upward and are secured to the rear wall. The front section 27 of the ceiling is secured in a like manner to the roof of the fireproof structure, and the space between the sections 25 and 27 is adapted to be closed by a movable ceiling-section 28, which is hinged to the section 25 and is adapted to be secured in closed position by spring-catches 29. These catches are connected to the operating-cables 30, which extend downward into the operating-room 10, and when these cables are drawn longitudinally the catches 29 are retracted and the section 28 drops by gravity into the position shown by dotted lines in Fig. 1. The ceiling does not extend the full width of the fireproof structure, but is only arranged above that portion of the stage located in rear of the arch 4. Cables 31 connect the seals 14 with the section 28, so that when said seals are drawn upward into position within the stacks 12 the section 28 is swung upward until automatically engaged by the catches 29. Ventilating-shafts 32 are built in the side walls of the fireproof structure and have suitably-disposed openings therein whereby the interior of the structure can be thoroughly ventilated. Outlets 33 are arranged within the rear wall of the fireproof structure and are normally closed by fireproof doors 34, which open outward from the stage, and similar outlets or exits 35 are formed within the walls of the property-room 2. An aperture 36 is formed within the front ceiling-section 27, so as to permit the passage therethrough of the curtain 6.

At the beginning of each performance the cables 30 are drawn longitudinally, so as to disengage the catches 29 from the section 28, and this section is then supported in position by the cables 31, attached to the seals 14. Then in the event of a fire the curtain 6 is immediately dropped into position in rear of arch 4, and flames are thus prevented from passing into the auditorium. The actors withdraw from the stage, and the fireproof doors 34 are closed. Shaft 19 is then rotated by means of the wheel 20, and the seal 14 and the center section of the ceiling 28 move downward by gravity, so as to establish a strong draft from the bottom to the top of the fireproof structure. Should any scenery contained within the stage proper prevent the section 28 from dropping to its lowest position, the seals 14 upon contacting with said section will force the same downward in view of the fact that said seals are of very heavy construction, and the said seals will finally fall to the floor of the stage proper. If desired, the curtain can be slightly raised after all of the above operations have taken place, and air will thus be admitted to the interior of the fireproof structure, and a complete draft will be established up to the stacks 12, through which the flames and gases will be discharged. It will be seen that should a fire break out in the property-room the fireproof structure will prevent the spread thereof to the auditorium.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. A building having a fireproof structure built therein and opening into a portion of the building, a fireproof curtain for closing the opening, stacks extending through the top of the fireproof structure, combined seals and receptacles within said stacks, and means for draining the seals.

2. The combination with a building having a fireproof structure built therein and opening into a portion of the building; of a curtain for closing the opening, stacks extending upward from the fireproof structure, and connected seals adapted to close the stacks.

3. The combination with a building having a fireproof structure built therein and opening into a portion of the building; of a fireproof curtain adapted to close the opening, outlet-stacks extending from the structure, connected seals adapted to close the stacks, means for operating the seals in unison, and ventilating-shafts within the structure.

4. A building having a fireproof structure

built therein and opening into a portion of
the building, a fireproof curtain adapted to
close the opening, oppositely-disposed ceiling-
sections within the structure, a hinged ceiling-
5 section interposed therebetween, a lock there-
for, outlet-stacks extending from the struc-
ture and above the ceiling, connected seals
adapted to close the stacks, connecting devices
between the seals and hinged ceiling-section,
10 and means for removing the seals and ceiling-
section from their normal positions.

5. A theater comprising a property-room,
an auditorium, and a fireproof structure in-
terposed between the auditorium and property-

room, said structure opening into the audito- 15
rium, a fireproof curtain adapted to close said
opening, a ceiling within the fireproof struc-
ture and having a movable section, outlet-
stacks in the top of the fireproof structure,
connected seals adapted to close the same, and 20
means for operating the ceiling-section and
the seals.

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

JOHN SCULLY.

Witnesses:

GEORGE P. HUHN,
F. E. GROSS.