Jan. 2, 1923.

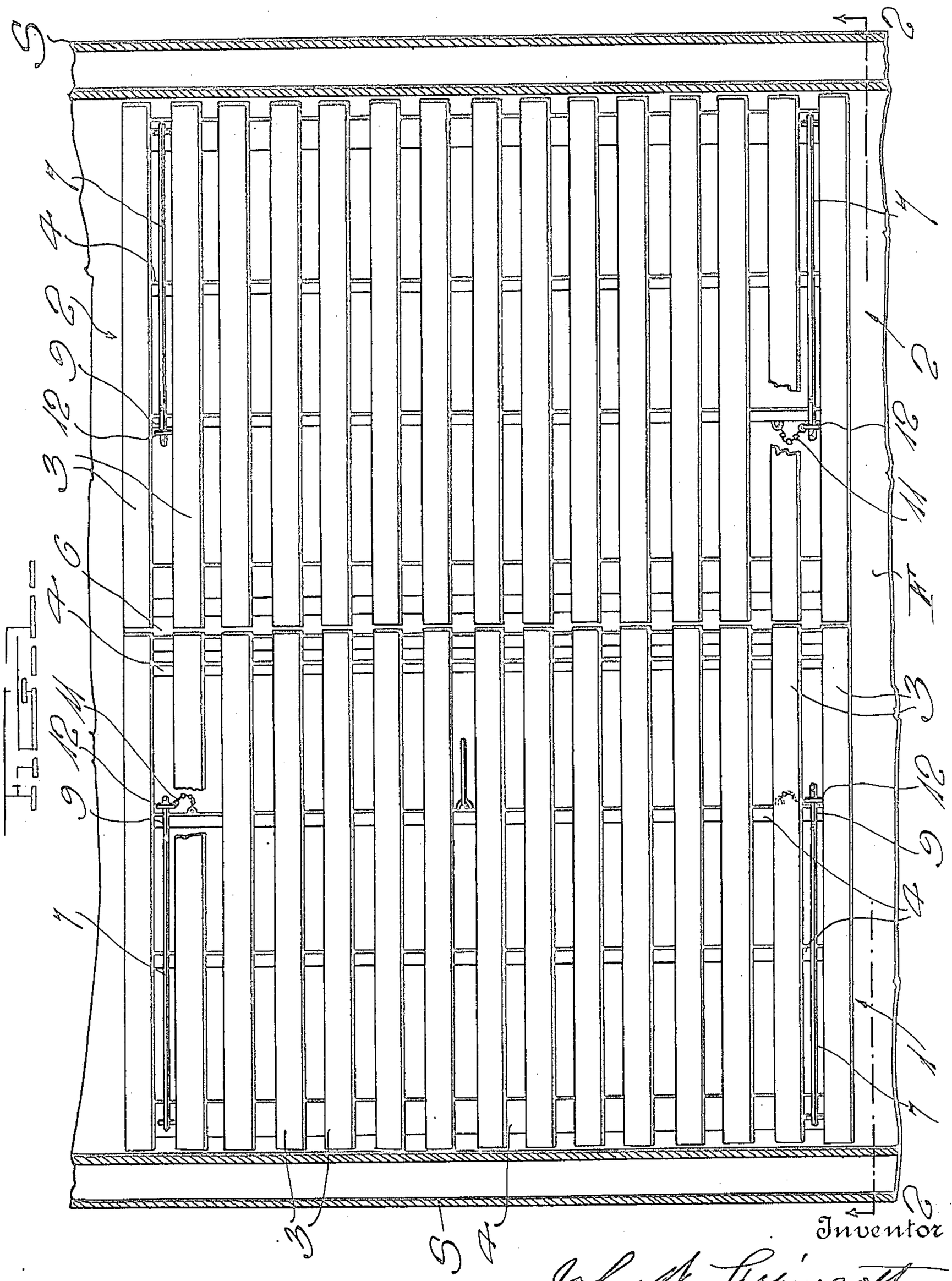
1,440,476

J. W. LIPPINCOTT.

CONVERTIBLE FALSE FLOOR.

FILED OCT. 9, 1922.

3 SHEETS-SHEET 1



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3 SHEETS-SHEET 2

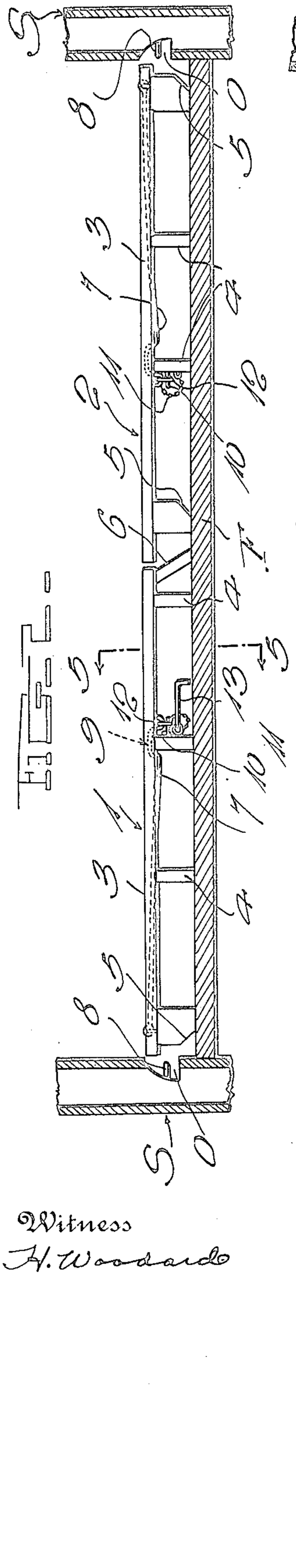

FIG. 1.

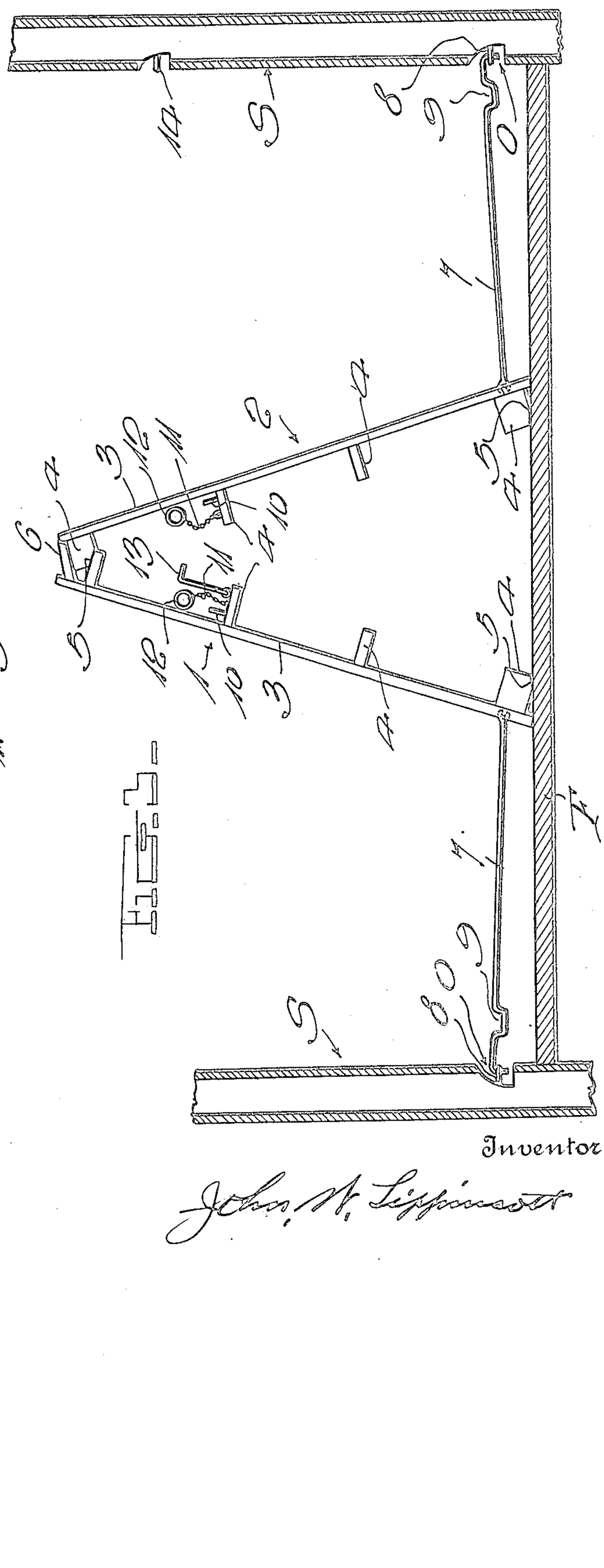

FIG. 2.

Witness
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3 SHEETS-SHEET 3

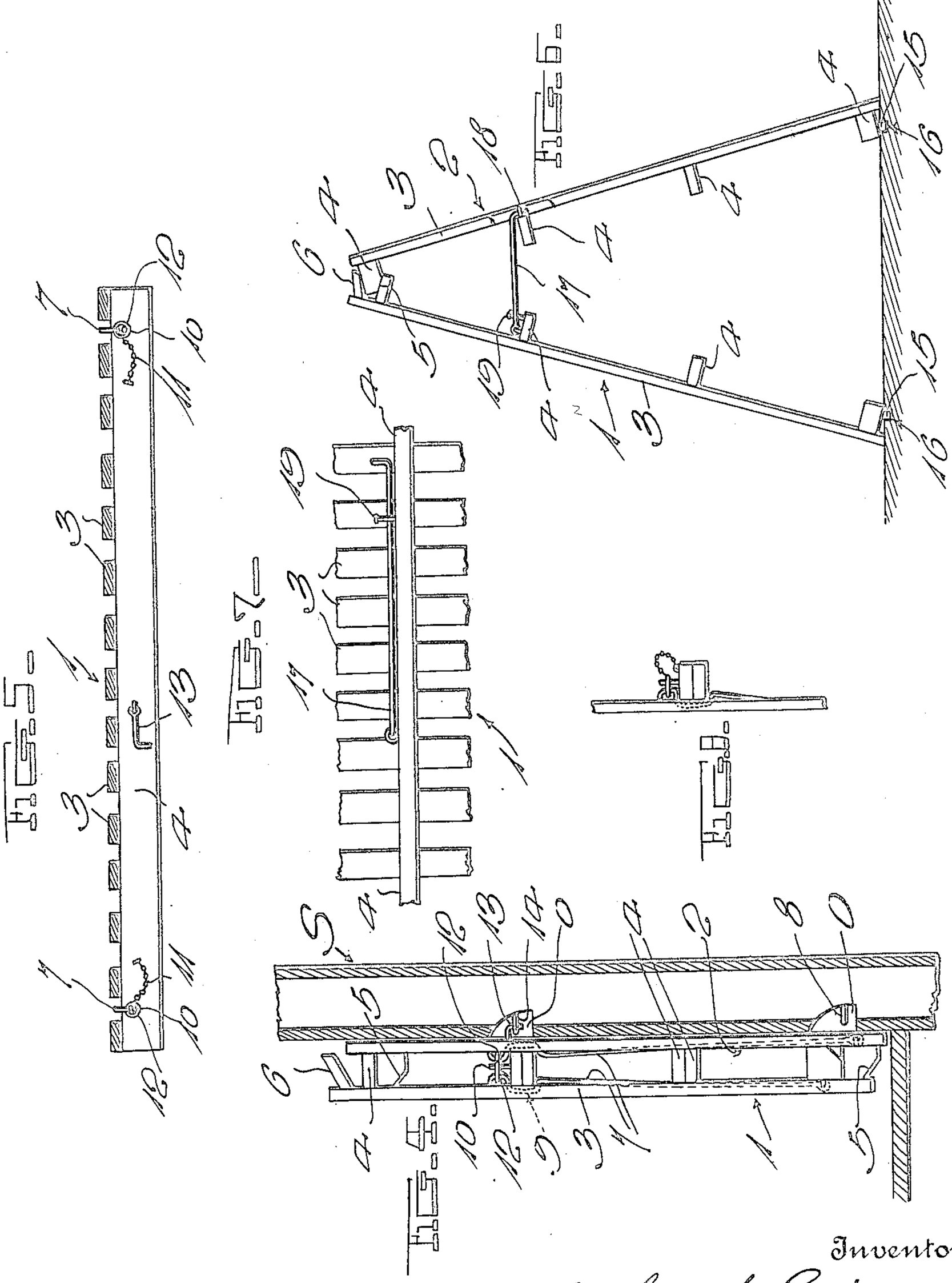

FIG. 5.

FIG. 6.

FIG. 7.

FIG. 8.

FIG. 4.

Witness
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John W. Lippincott

Patented Jan. 2, 1923. 1,440,476

UNITED STATES PATENT OFFICE.

JOHN W. LIPPINCOTT, OF LITTLE ROCK, ARKANSAS.

CONVERTIBLE FALSE FLOOR.

Application filed October 9, 1922. Serial No. 593,321.

To all whom it may concern:

Be it known that I, JOHN W. LIPPINCOTT, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Convertible False Floors; 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.

This invention relates broadly to improvements in ventilating freight cars, but has more particular reference to a false floor therefor which is such in construction as to permit it to be converted to provide a partition, whereby to permit loose vegetables and fruits to be piled in the separate compartments thus formed and to afford good ventilation to prevent perishing thereof.

The principal object of the invention is to generally improve upon floors of this class, by providing one which is extremely simple and inexpensive, practical and capable of being readily installed in the car to provide either a partition or floor as desired.

More specifically speaking, it is another object of the invention to provide a false floor which is composed of a plurality of sections, each of which includes substantially duplicate parts which may be placed in downwardly divergent relation to provide a unique partition or may be placed close together and suspended from the walls of the car to render each section compact and to dispose it in an entirely out-of-the-way position when not in use.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a horizontal section of a portion of a ventilating freight car body showing the improved false floor installed therein.

Figure 2 is a section taken approximately on the line 2—2 of Fig. 1.

Figure 3 is a view similar to Fig. 2 showing the sections of the floor disposed to provide the aforesaid partition.

Figure 4 is a view disclosing the manner of arranging the floor sections in compact form and suspending them in an out-of-the-way position on the side of the car.

Figure 5 is a section taken on the line 5—5 of Fig. 2.

Figure 6 is a view similar to Fig. 3 showing a slightly modified construction.

Figure 7 is an enlarged detail elevation disclosing the position of the connecting hook when it is not in use.

Figure 8 is a detail view showing the manner of maintaining one of the retaining hooks in inoperative position.

In the drawings, the letter F designates the main floor of a ventilating freight car and S designates the sides of the car which are composed of spaced walls, the end ones of which are formed with openings O which serve a purpose to be hereinafter made apparent.

The invention, as before intimated, resides in the employment of a unique false floor beneath which the cold air circulates. Although this floor could be constructed otherwise, it is preferably formed from a plurality of sections each of which is composed of a pair of substantially duplicate parts 1 and 2 which are adapted to be arranged in the same horizontal plane with their inner ends close to one another to provide an even floor upon which boxed goods and the like may be placed. Each of the aforesaid parts is composed of a plurality of transverse slats 3 connected together by spaced parallel runners or spacing strips 4. In practice, these spacing strips are preferably bolted to the slats, but they may be simply nailed if desired. Attention is here directed to the fact that the outermost spacing strips of both of the parts and the innermost of the part 2 are beveled as indicated at the points 5 to serve a purpose to be hereinafter described. Also, the part 1 is equipped with an additional and inclined spacing strip 6 which is disposed close to the adjacent strip 4 to act in a manner to be later described.

It has already been indicated that when it is desired to ship loose vegetables and fruits and to simply pile them in the car, it is desirable to provide a partition at the center of the car for dividing it into opposed compartments. Instead of using an extra partition for this purpose, I have simply constructed the parts 1 and 2 of the floor sections as described so that they may be disposed in the downwardly diverging

relation disclosed in Fig. 3 to provide a unique ventilating partition. By directing attention to this figure, it will be seen that when these parts are thus positioned, the beveled portions of the then lowermost spacing strips or runners engage the floor F while the beveled portion of the uppermost strip on the section 2 is disposed between the closely spaced strips 4 and 6 at the upper end of the floor section 1. The beveled portion of the uppermost strip on the part 2 engages the lower one of these closely spaced strips and permits the proper relative inclination of the parts. Although it is not essential, pivoted retaining rods 7 are provided, these being connected to the lower portions of the inclined parts and being bent at their outer ends to provide hooks for engagement with eyes 8 secured to the walls of the car body. It is to be noted that the rods adjacent these hooks are bent as at 9 to provide seats in which the intermediate spacing runners of the parts 1 and 2 are received when the rods are folded to the ineffective positions disclosed in Fig. 2. I am led to state here that suitable means is provided for maintaining the rods in this position, the means in all instances comprising upstanding pins 10 secured to the intermediate spacing strips, together with chains 11 carrying rings 12. As seen better in Figs. 4 and 8, the rings are designed to be engaged with the hooked ends of the rods and to be slipped over the pins to maintain the rods against undue and undesirable movement when they are not in use.

When the device is not to be used, such as is the case when it is desired to ship heavy machinery and the like, it is advisable to dispose the several sections of the floor in an out-of-the-way position by simply suspending the two parts of each section from either side wall of the car as illustrated in Fig. 4. In carrying out this end, the part 1 of each floor section is equipped with a small hook 13 designed to be engaged with an eye 14 secured to the wall of the car. As seen in the figure just mentioned, before the part 1 is hooked in place, the complemental part 2 is placed between it and the wall of the car as shown so that both parts of each floor section can be arranged in the compact condition shown.

In all instances, it is not desirable to employ the special hooked rods 7 for maintaining the slatted parts in the divergent relation shown when the device is used as a partition, and in some instances, as seen in Fig. 6, the hooked rods are entirely dispensed with and small studs or the like 15 are secured to the lowermost connecting strips, these studs being designed for reception in the small recesses or sockets 16 formed in the main floor of the car. To act in conjunction with the means just described, I also employ additional pivoted hooks 17 which co-act with the eyes 18 to prevent separation of the parts 1 and 2 after they are arranged in the divergent relation shown. I may state here that by using these hooks and eyes 17 and 18, the sockets and pins 15 and 16 may be entirely dispensed with. However, to prevent undue shifting of the partition, the construction just specifically described is preferably employed. When this form of partition is collapsed to permit the sections to provide a false floor, it is desirable to maintain the hook 17 in an out-of-the-way position, and by directing attention to Fig. 7, it will be seen that this result is accomplished by simply driving a nail or the like 19 into the same runner 4 at a point to permit the hook to be held behind it and against this runner as clearly shown.

Inasmuch as ventilated and refrigerator cars are approximately thirty-five feet in length, it is desirable, as before inferred to form the false floor of a number of sections to promote convenient and easy assembling and handling. Each section will be approximately seven feet in length.

From the foregoing description, it is obvious that I have evolved and produced a novel combination device which is capable of being effectively used as a false floor in refrigerator cars or as a novel partition for dividing the car into separate compartments in which vegetables and the like are to be loosely piled. In either of said uses, the invention will insure splendid ventilation for the contents of the car. These and other advantages and features of the invention have doubtless been made apparent and for this reason, a more lengthy description is thought unnecessary.

I claim:

1. A convertible false floor for freight cars comprising a pair of duplicate sections to be arranged in the same horizontal plane when used as a floor, but capable of being arranged in divergent relation at the center of the car to form a ventilating partition.

2. A convertible false floor for freight cars comprising a pair of sections composed of longitudinal spacing runners having spaced transverse slats secured thereto, said sections being capable of being arranged in divergent relation with their top runners engaging one another, and means for holding the sections in such relation.

3. The structure set forth in claim 2, said means being pivoted hooks.

4. In a freight car, a ventilating partition comprising a pair of divergent sections, longitudinal runners, the top ones of which are engaged with one another, and separable fastening means for said sections.

5. A convertible ventilating partition for freight cars comprising a pair of divergent

sections having longitudinal strips or runners on their inner faces, the lowermost runners having beveled portions engaging the floor, and the uppermost runners being engaged to assist in maintaining the sections connected.

6. The structure set forth in claim 5, together with pivoted hooks for preventing spreading of said sections.

7. In a ventilating partition for freight cars, a pair of downwardly diverging sections composed of spaced slats connected to longitudinal runners, and hooks pivoted to said sections, being intended to be connected with eyes secured to the car walls.

8. The structure set forth in claim 8, together with means for maintaining the hooks out of the way when the partition is converted into a false floor, and also when said sections are suspended from the car walls.

9. A convertible false floor for use in freight cars comprising a pair of duplicate sections composed of spaced slats connected by longitudinal spacing runners, the lowermost of which have beveled portions for engaging the floor, the two upper runners on one of said sections being close together and the upper runner on the other section being intended for disposition between them, said last named runners having a beveled portion to permit the relative inclination of sections when used to provide a partition.

JOHN W. LIPPINCOTT.