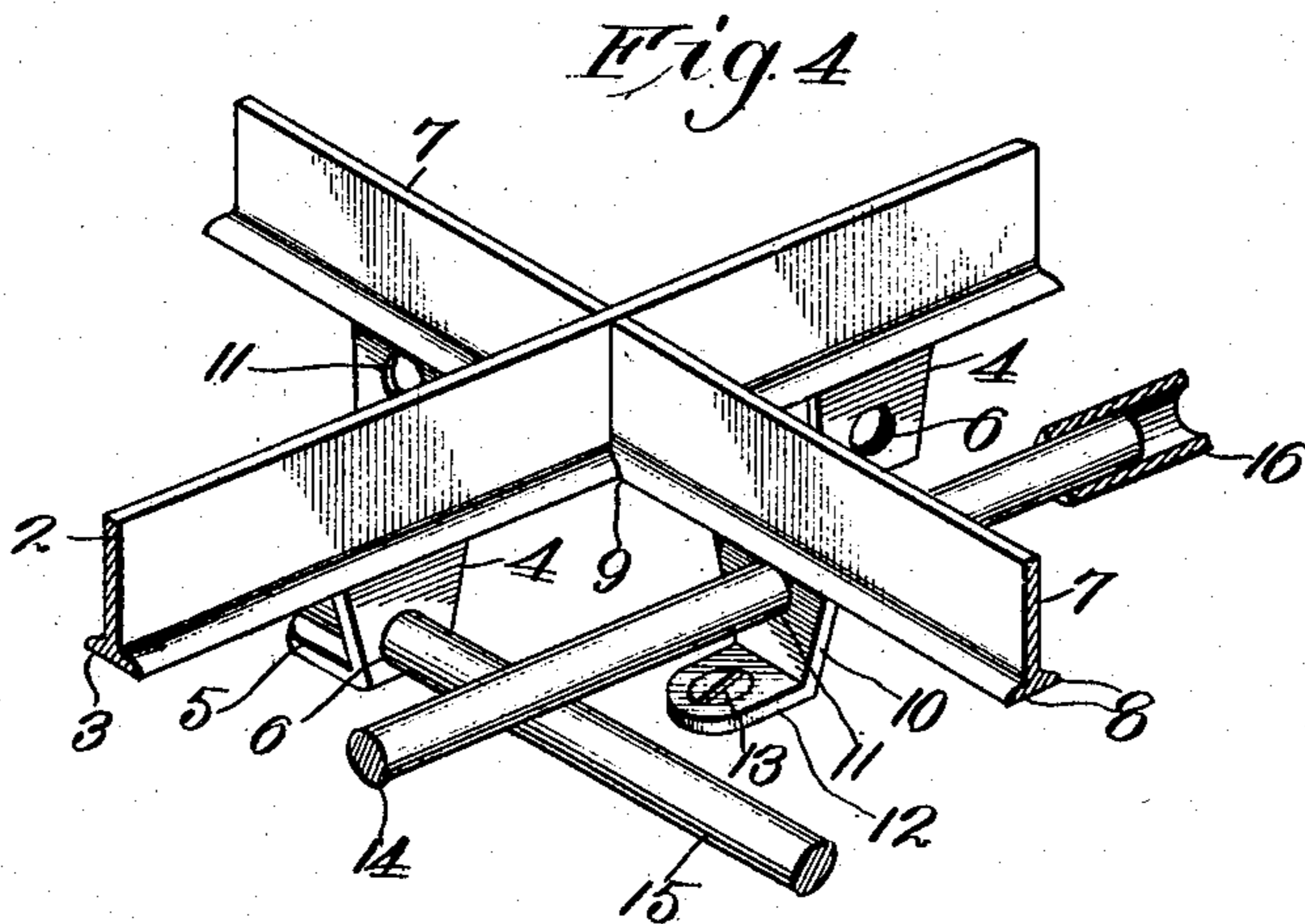
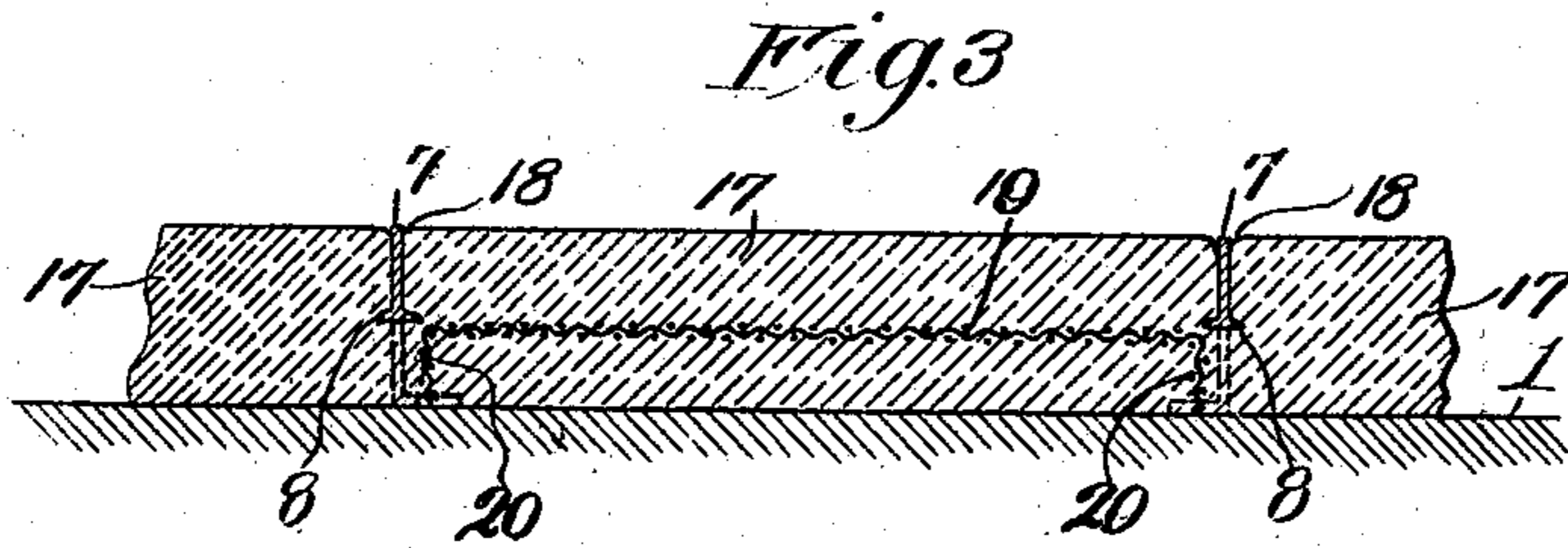
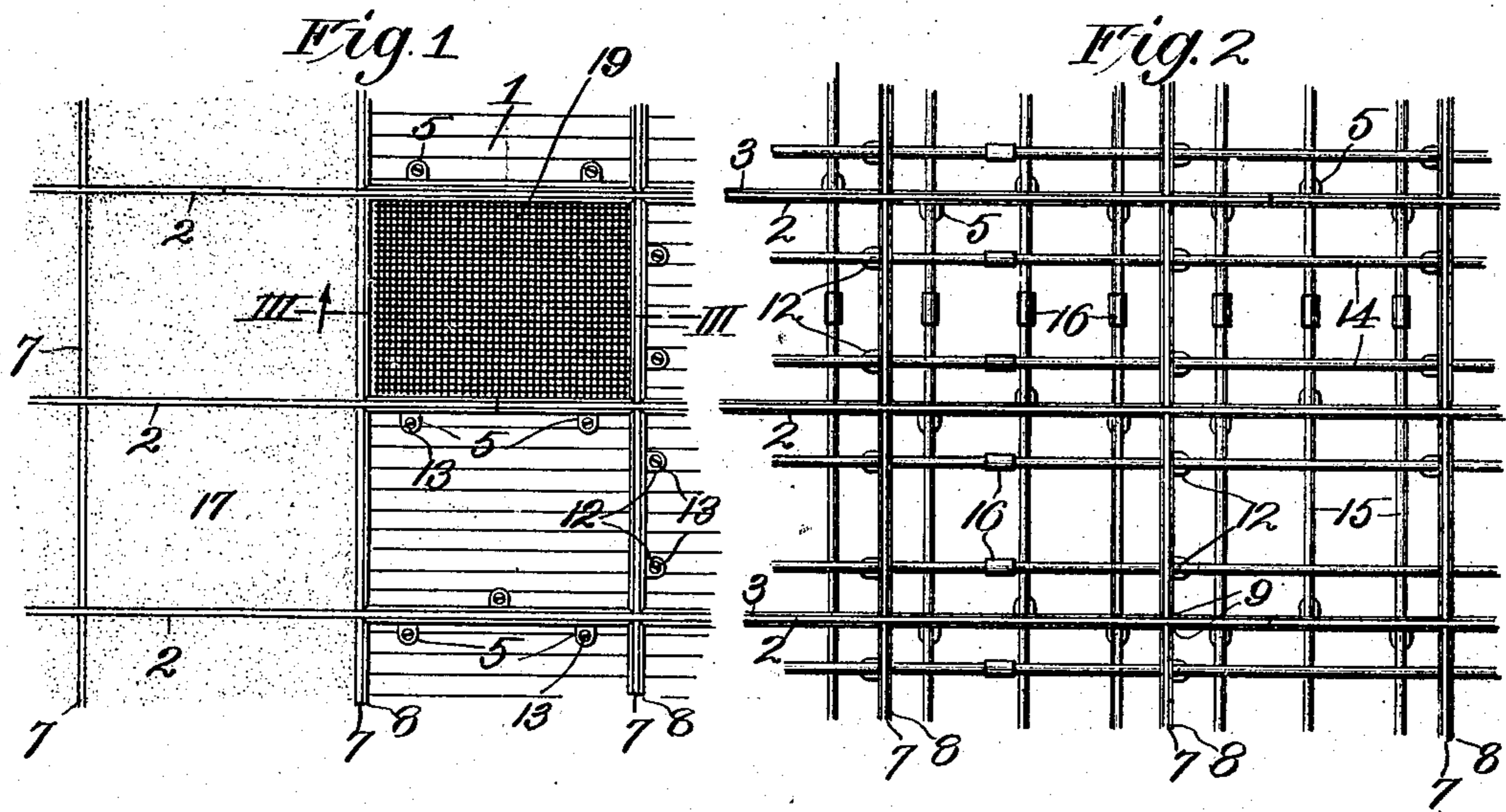


No. 858,448.

PATENTED JULY 2, 1907.

S. H. GARTRELL & W. E. MIDDLETON.
CEMENT FACING FOR FLOORS.

APPLICATION FILED OCT. 3, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

STERNE H. GARTRELL AND WILLIAM E. MIDDLETON, OF KANSAS CITY, MISSOURI.

CEMENT FACING FOR FLOORS.

No. 858,448.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed October 3, 1906. Serial No. 337,330.

To all whom it may concern:

Be it known that we, STERNE H. GARTRELL and WILLIAM E. MIDDLETON, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Cement Facing for Floors, of which the following is a specification.

This invention relates to cement flooring and is designed more especially as a facing for wood floors, our object being to equip such floors with practically indestructible and sanitary facings which will accommodate the sagging or springing of the floors.

A further object is to produce a facing of this character in the form of slabs or tiles so that in case of injury to one or more of the slabs or tiles they may be replaced without affecting the adjacent ones, at a low cost and in an expeditious manner.

With these general objects in view and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawing, in which—

Figure 1, is a plan view of a wood flooring showing a cement facing therefor in course of construction. Fig. 2, is a top plan view showing the skeleton work of the preferred type of facing. Fig. 3, is an enlarged vertical section taken on the line III—III of Fig. 1, with the cement work in place, said figure showing a portion of a skeleton work of different type from that shown in Fig. 2. Fig. 4, is an enlarged detail perspective view of a portion of the skeleton work shown in Fig. 2.

In the said drawings, 1 indicates a wood or other flooring, 2 a series of thin lead strips arranged edgewise and in parallel relation, it being understood that each strip 2 may be in a single piece but preferably consists of a plurality of alined sections with their ends abutting as shown in Fig. 2. The strips are preferably provided with longitudinal beads or flanges 3, at their lower edges for a purpose which hereinafter appears and depending from said strips are legs 4 provided with laterally projecting lugs 5 resting upon the floor, and said legs are provided with apertures 6. 7 indicates similar strips of lead or equivalent material arranged transversely with respect to strips 2 to form square panels, though it is to be understood that the strips may be of any suitable configuration to produce panels of any desired design. The strips 7 are provided at their lower edges with beads or flanges 8, and where they abut against the meeting strips 2 they are preferably cut away as at 9 so as to form close joints with said strips 2 as shown in Fig. 4. 10 are legs depending from strips 7 and provided with apertures 11 and laterally projecting lugs 12, to rest like lugs 5 upon the floor, and in this connection it should be

noted that the lugs of both sets of legs are perforated to receive screws 13 or equivalent devices for securing the strips reliably to the floor.

In the preferred construction, reinforce rods 14 extend through the apertures 11 of alined legs 10 and similar rods 15 extending through the apertures 6 of the alined legs 4, one set of apertures being arranged in a lower plane than the other to avoid interference between the two sets of rods, as shown in Figs. 2 and 4, it being also noted that the abutting ends of the alined rods are preferably connected together by sleeves 16 so that they will not sag when the skeleton work is arranged upon a floor. The cement 17 in plastic state is poured upon the floor and of course fills the interstices of the skeleton work, the mass of cement being integral by reason of the fact that the panels of cement are connected below the strips between the legs thereof. The panels are filled up to the level of the upper edges of the lead strips with the cement and the edges of the latter contiguous to the strips are rounded as at 18, slightly to reduce chance of chipping to the minimum when a wheelbarrow or other heavy object is rolled upon the floor, and also to provide shallow grooves within which the upper edges of the lead or equivalent soft metal strips may be pressed either intentionally or by the imposition of heavy objects.

It will be apparent that the lead strips will yield vertically or laterally without breakage to accommodate sagging of the floor, and that because of the lateral yield of such strips there will be practically no danger of injury to the slabs or tiles of cement. Should one of the slabs or tiles become broken or injured it can be readily replaced without affecting the surrounding slabs or tiles. It will be seen therefore that the floor can be repaired cheaply and easily and always kept in a sanitary condition.

In exceptionally light facings for wood floors the reinforce skeleton work consisting of rods 14 and 15 may be dispensed with and in lieu thereof the slabs or tiles may be reinforced by wire gauze or equivalent material 19. In Figs. 1 and 3 one of the panels is shown as equipped with a wire gauze skeleton reinforcement, the last-named figure showing how the body portion of the gauze is supported by bending its opposite edges downward to produce supporting legs 20, which will rest upon the floor and also upon lugs 5 or 12 which may project into the plane of the panels.

The beads or flanges of the strips serve to stiffen the same and also prevent the cement or equivalent filling from buckling upward or from sagging downward independent of the strips, the result being the level of the cement and strips is maintained. It will be further noted that the lead cannot wear more rapidly than the cement because it is in the form of narrow strips and is

protected by the cement, and in this connection it is to be understood that by the term "strips" is meant the parts of a figure of any design, the parts of such figure being of integral formation if desired.

- 5 From the above description it will be apparent that we have produced a cement facing for floors possessing the features of advantage enumerated as desirable and which obviously is susceptible of modification without departing from the spirit and scope of the appended
10 claims.

Having thus described the invention what we claim as new and desire to secure by Letters-Patent, is:—

1. In a facing for floors, compressible strips arranged to form panels and provided with depending legs to rest
15 upon the floor below and with beads or flanges at the upper ends of said legs, cement filling said panels and united in an integral mass below the strips, and skeleton frames within the spaces described by the panels and embedded in the cement below the same.
- 20 2. In a facing for floors, compressible strips arranged to form panels and provided with depending legs to rest upon the floor below and with beads or flanges at the upper ends of said legs, cement filling said panels and united in an integral mass below the strips, and skeleton
25 frames within the spaces described by the panels and

embedded in the cement below the same and consisting of crossed rods supported by the depending legs of said strips above the floor.

3. In a facing for floors, compressible strips arranged to form panels and provided with depending legs having
30 lugs to rest upon and be secured to the floor, said strips having beads or flanges at the upper ends of the legs, cement filling said panels and united in an integral mass below the beads, and skeleton frames within the panels and embedded in the cement below the same and consist-
35 ing of crossed rods supported by said strips and above the floor.

4. The combination with a wooden floor, of flexible strips arranged edgewise above the floor to form panels and provided with depending perforated lugs arranged to
40 be secured to the floor, cross rods inserted through said perforated lugs out of alinement with the strips, and cement filling the panels and united below the same and surrounding the cross rods, the surface of the cement being slightly grooved adjacent the upper edges of the
45 strips.

In testimony whereof we affix our signatures, in the presence of two witnesses.

STERNE H. GARTRELL.
WILLIAM E. MIDDLETON.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.