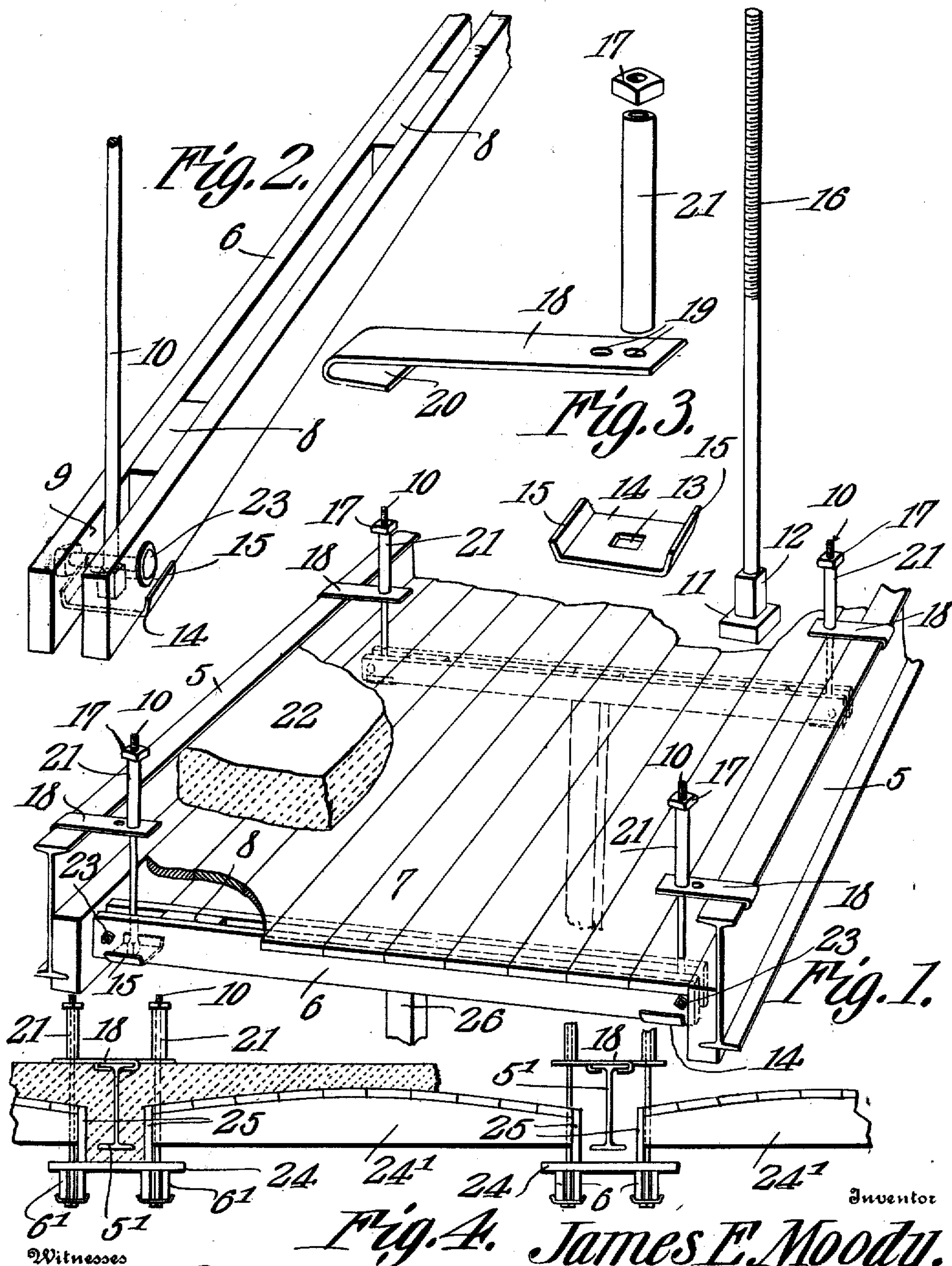


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 CENTERING MOLD.
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930,308.

Patented Aug. 3, 1909.



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CENTERING-MOLD.

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To all whom it may concern:

Be it known that I, JAMES E. MOODY, a citizen of the United States, residing at Essex, in the county of Kankakee and State of Illinois, have invented a new and useful Centering-Mold, of which the following is a specification.

This invention relates to building construction and more particularly to a hanger or centering device for supporting the temporary flooring or arched frames used in the construction of bridges, floors, ceilings, roofs, side walks, viaducts, and other masonry structures.

The object of the invention is to provide a centering device or hanger capable of being readily attached to the supporting joists of a building and by means of which the temporary flooring or arched frames may be suspended from and retained in position on said joists during placement of the concrete or other material.

A further object is to provide a hanger including a center bolt having a flanged retaining plate loosely mounted on one end thereof for engagement with the work and provided at its opposite end with a clamping member for engagement with the adjacent floor joist, there being a sleeve interposed between the clamping member and nut for adjusting the temporary flooring vertically of the joists, thereby to regulate the thickness or depth of the concrete covering or floor.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of the specification:—Figure 1 is a perspective view of a portion of a floor showing my improved centering device or hanger in position thereon. Fig. 2 is a detail perspective view of one end of one of the temporary floor supporting bars showing the manner of fastening the hanger thereon. Fig. 3 is a perspective view of the bolt, clamping plate and retaining plate, constituting the hanger detached. Fig. 4 is a transverse sectional view showing the manner of forming arched floors or other masonry structures.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved centering device forming the subject matter of the present invention is principally designed for use in the construction of concrete floors, ceilings, viaducts and other masonry structures and by way of illustration is shown applied to the supporting joists of a floor in which 5 designates the joists preferably in the form of eye-beams, although any other style of joists may be used if desired.

Interposed between the joists 5 are one or more transverse bars 6 adapted to receive and support the temporary flooring 7. The bars 6 are preferably formed of longitudinal strips spaced apart by one or more filling blocks 8, the terminal filling blocks being spaced inwardly from the opposite ends of the bars 6 to form recesses 9 adapted to receive the adjacent ends of the center bolts or hangers 10. The lower end of each hanger is provided with a squared head 11 and secured to or formed integral with said head is a squared shoulder 12 which enters a correspondingly shaped recess 13 formed in a work-engaging plate 14. The work-engaging plate 14 is preferably formed of a flat piece of metal having its opposite ends deflected laterally to form inclined flanges 15 adapted to bear against the adjacent longitudinal edges of the strips constituting the bars 6. Attention is here called to the fact that the opening 13 is slightly larger than the cross sectional diameter of the squared portion or shoulder 11 in order to allow for slight tilting of the plate 14 and thus adapt the device to any irregularities or unevenness in the timbers comprising the bars 6. This slight tilting movement of the plate 14 also insures equal distribution of the weight on said plates. The opposite end of the bolt or hanger 10 is threaded at 16 for engagement with a nut or nut 17.

Loosely mounted for sliding movement on the unthreaded portion of the bolt 10 is a clamping plate 18 having one end thereof provided with a plurality of openings 19 to permit the passage of the bolt 10 and its opposite end bent to form an over-hanging hook 20 adapted to engage and clamp the upper flange of the adjacent beam 5.

Interposed between the upper surface of the clamping plate 18 and the nut 17 is a loose sleeve or collar 21 which, when the ad-

5 adjacent nut is tightened bears against the clamping member 18 and serves to lock the latter in position on the adjacent eye-beam or joist. Thus it will be seen that by rotating the nuts on the threaded ends of the hangers or bolts 10 the bars 6 together with the temporary flooring 7 may be adjusted vertically between the joists so as to regulate the thickness of the flooring or other concrete covering, indicated at 22.

10 Extending transversely across the recesses 9 are bolts 23 which serve to prevent lateral displacement of the adjacent rods or hangers and also serve to limit the lateral movement of the bars 6.

15 In constructing a floor, pavement or the like the hangers 10 are extended through the recesses 9 of the bars 6 with the retaining plates 14 in engagement with the lower edges of said bars and with the clamping plates 18 engaging the upper flanges of the eye-beams or floor-joists 5, after which the nuts 17 are adjusted so as to bear against the sleeves 21 and thus lock the several parts in position on the joist, in the manner before described. After the parts are thus positioned a temporary flooring is supported on the bars 6 and the concrete, cement, asphalt or other material shoveled or otherwise placed on the temporary flooring and leveled off in the usual manner. In order to remove the floor it is merely necessary to detach the nuts when the temporary flooring may be lowered between the floor supporting joists without danger of chipping or otherwise marring or cracking the cement or concrete flooring.

20 Attention is here called to the fact that the several hangers are independent and detachably connected with the transverse beams 6 and floor supporting joists 5 so that said hangers may be independently adjusted to permit alining of the temporary flooring and also to permit independent detachment of said hangers.

25 In Fig. 4 of the drawings the device is shown used for constructing a flooring having its lower face arched. In this form of the device the bars 6' are extended parallel with the joists 5', while a board or plank 24 rests upon the upper longitudinal edges of the bars 6' and forms a support for the frames 24'. Thus it will be seen that the plank or timber 25 forms a support for the adjacent longitudinal edges of the arch frames on opposite sides of the eye-beams or joists.

30 When the hangers are employed for supporting arch frames the clamping plates 18

are preferably disposed in opposite directions, that is to say with the hooked terminals of said clamping plates engaging the opposite longitudinal edges of the upper flange of the adjacent eye-beam and with the center bolts extending downwardly through the recesses in the bars 6' for engagement with the retaining plates, in the manner before described.

35 In some cases suitable standards or supports 26 may be employed for reinforcing and bracing the temporary flooring or arched frames in order to assist in sustaining the weight of concrete or other plastic material. If desired, however, these bars or standards may be dispensed with, and in which event, the bars 6 and 6' will be made stronger and more of said bars employed for spanning the gap between the adjacent floor joists.

40 Having thus described the invention what is claimed is:—

1. In masonry construction, the combination with the floor joists, of supporting bars adapted to receive a temporary flooring, hangers extending through the supporting bars and having their upper ends threaded, clamping plates having hooked terminals for engagement with the adjacent joists, and provided with openings adapted to receive the hangers sleeves slidably mounted on the threaded portions of the hangers and adapted to bear against the upper faces of the plates, and nuts engaging the threads on said hangers for clamping the sleeves in engagement with said plates.

2. A hanger for masonry construction including a bar having one end thereof threaded and its opposite end provided with a squared shoulder terminating in an enlarged head, a retaining plate loosely mounted on the bar at said squared shoulder and provided with oppositely disposed work-engaging flanges, a clamping plate slidably mounted on the bar and having a plurality of openings formed in one end thereof and having its opposite end bent upon itself to form an over-hanging clamping hook, a sleeve loosely mounted on the bar and forming a housing for the threads, and a clamping nut engaging said threads for forcing the sleeves in engagement with the clamping plate.

3. In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES EDGAR MOODY.

Witnesses:

OUIDA LAWTON,
W. K. ZEWUDSKI.