

No. 644,986.

J. L. LECHNER.

Patented Mar. 6, 1900.

FALSE WORK FOR CENTERING CONCRETE OR OTHER FLOORS.

(No Model.)

(Application filed Dec. 18, 1899.)

2 Sheets—Sheet 1.

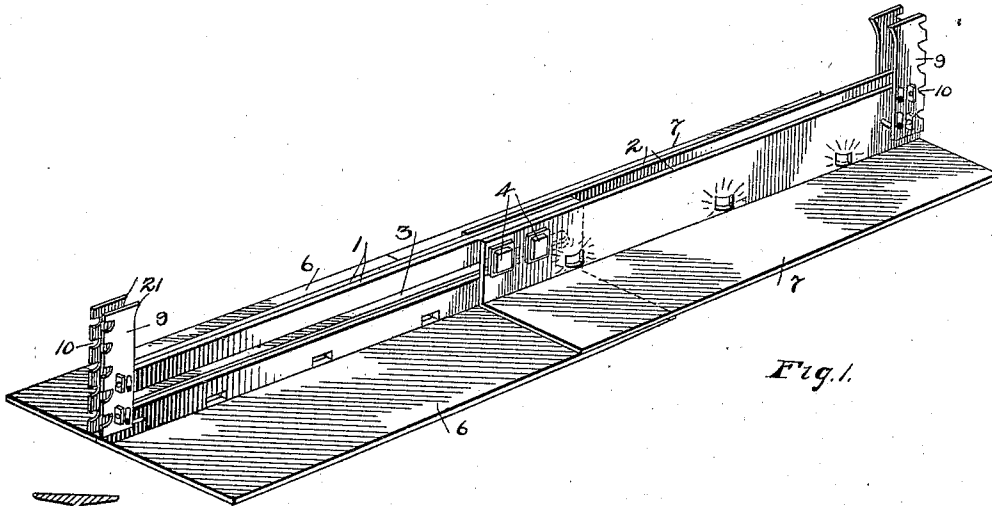


Fig. 1.

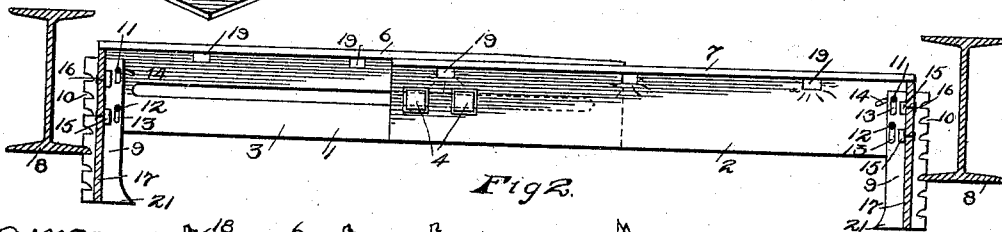


Fig. 2.

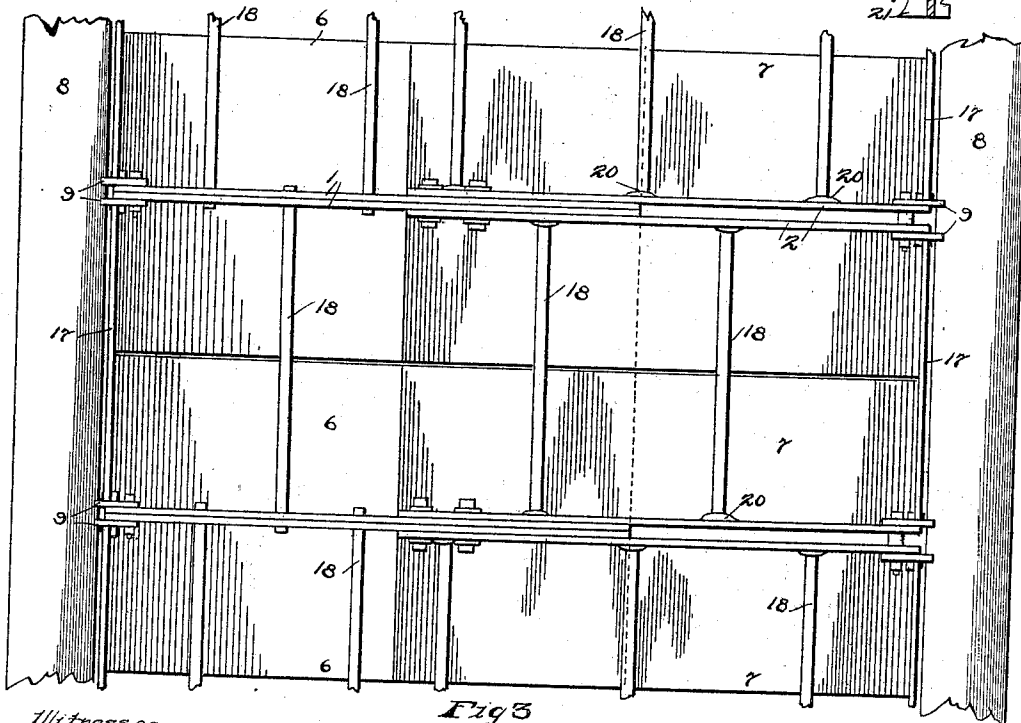


Fig. 3.

Witnesses.
W. S. Dawson
Deputy

Inventor
J. L. Lechner
J. M. Kessler
Attorney

No. 644,986.

Patented Mar. 6, 1900.

J. L. LECHNER.

FALSE WORK FOR CENTERING CONCRETE OR OTHER FLOORS.

(No Model.)

(Application filed Dec. 18, 1899.)

2 Sheets—Sheet 2.

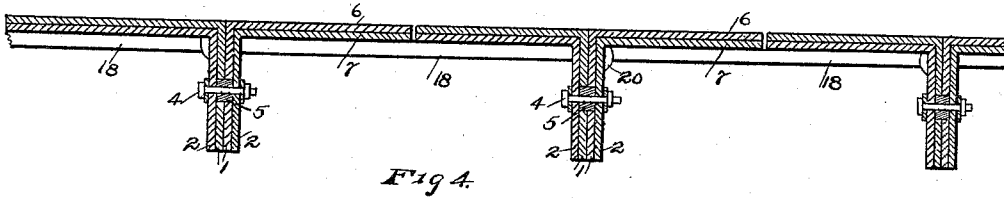


Fig. 4.

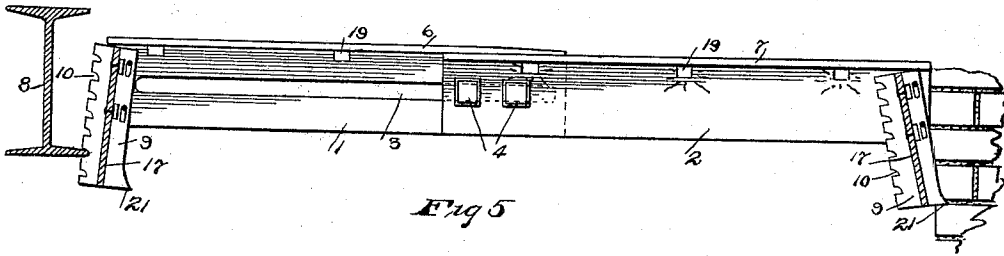


Fig. 5.

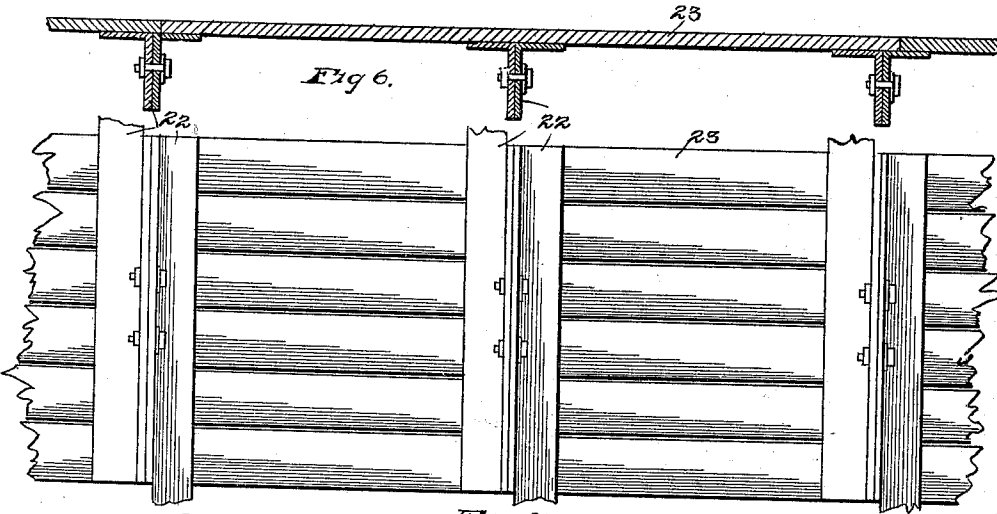


Fig. 6.

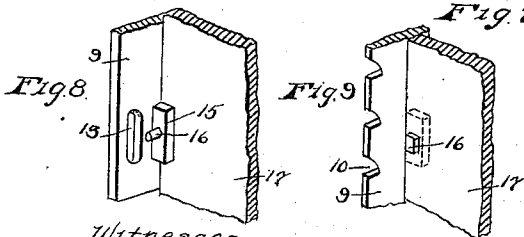


Fig. 7.

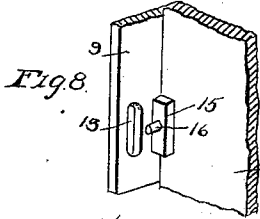


Fig. 8.

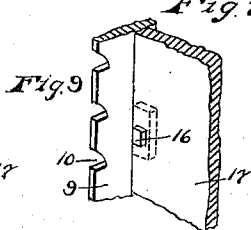


Fig. 9.

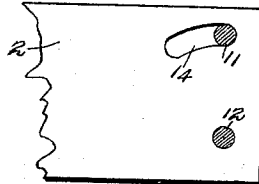


Fig. 10.

Witnesses
W. S. Dawson,
C. P. Leary.

Inventor
J. L. Lechner.
By J. M. Kerbit
Attorney.

UNITED STATES PATENT OFFICE.

JEFFERSON L. LECHNER, OF ALLEGHENY, PENNSYLVANIA.

FALSE WORK FOR CENTERING CONCRETE OR OTHER FLOORS.

SPECIFICATION forming part of Letters Patent No. 644,986, dated March 6, 1900.

Application filed December 18, 1899. Serial No. 740,696. (No model.)

To all whom it may concern:

Be it known that I, JEFFERSON L. LECHNER, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in False Work for Centering Concrete or other Floors, of which the following is a specification.

This invention relates to falsework for centering cement and other floors, and has for one object to displace the false work constructed of lumber by providing a metallic construction adapted interchangeably for wide and narrow bays, being adapted to expand and contract horizontally and also capable of vertical adjustment to accommodate itself to the desired thickness of floor and to beams of various depths and having such adjustments as will provide the floor with either square or tapered haunches.

A further object is to provide my improved adjustable supports with integral floor-sections and also to adapt them for sustaining wood planking when the latter is preferred.

Lumber is universally used for false work and being cut to conform to the dimensions of a given job much of it is rendered useless for further work, thus causing much waste both of money and material. My invention obviates this by providing a practically-indestructible structure having such adjustments as to meet the various sizes and other conditions attending this class of work.

The invention consists in the novel features of construction and in the combination and arrangement of parts hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of a section of my improvement. Fig. 2 is a side elevation showing the same in operative position between two beams. Fig. 3 is an under or inverted plan view of several sections in position. Fig. 4 is vertical cross-sectional view of several of the sections. Fig. 5 is an elevation similar to Fig. 2, showing several adjustments of the supporting-jacks. Fig. 6 is a vertical cross-sectional view showing my improved supports adapted for wood planking. Fig. 7 is an inverted plan or under view of the same. Figs. 8, 9, and 10 are detail views.

The transverse stringers or supports con-

sist of four vertical members 1 and 2, arranged in pairs, members 1 fitting together and slotted longitudinally at 3 and members 2 separated to bear against and move on the outer sides of members 1. The members are clamped securely together by bolts 4, being first arranged in desired longitudinal adjustment, said bolts passing through heads or washers 5 in slots 3, (see Fig. 4,) which give them firm hold on members 1. Said stringer members 1 and 2 are formed with top horizontal angles or wings 6 and 7, respectively, which when in position meet corresponding angles or wings of adjacent stringers, thus forming a substantially-unbroken floor for the falsework. Wings 6 overlap wings 7 to any desired extent, and thus conform to the adjustment of the stringer members.

The stringers are secured at opposite ends to beams 8 by means of vertical jacks 9, arranged in pairs, as shown, and formed with a succession of notches 10 to embrace the lower flanges of the beams. It is my intention to arrange these notches one inch apart, whereby the depth of the floor may be accurately regulated. The stringers and jacks are secured together by transverse bolts 11 and 12, and the jacks are slotted vertically at 13 to receive these bolts, so that the height of the falsework may be adjusted the fractional part of an inch in addition to the adjustment afforded by notches 10. The stringer members are formed with curved slots 14 to pass bolts 11, as when the jacks are turned at an angle to the stringers to form the floor with tapered haunches, this adjustment being shown at the left-hand end of Fig. 5.

The jacks are provided with perforated ears 15 to receive pins 16, projecting from boards 17, whereby the latter are sustained in position between adjacent stringers close to the beams to mold the inner faces of the haunches. Said boards also brace the stringers against lateral strains. The floor angles or wings are sustained in horizontal position or prevented from sagging by cross-bars 18, the ends of which enter apertures 19 in the stringer members immediately beneath said wings. These apertures in stringer members 2 are formed in bulges 20 of said members, whereby when said slots are overlapped by stringer members 1, as in the center of Fig. 3, the bar ends

will have substantial hold, whereas were it not for the bulges such hold would be limited to the thickness of the metal forming the stringer members. The inner edges of the
 5 jacks are formed at their lower ends each with a spike-shaped projection 21, so that with the position of the jack reversed, as at the right-hand end of Fig. 5, the spike ends of the jacks may be driven into seams in a wall with which
 10 the floor joins and thereby securely supported.

Longitudinally-adjustable stringer members 22 without broad wings or flanges may be utilized for supporting planking 23 where use of the latter is preferred, as seen in Figs.
 15 6 and 7. In this construction, however, each stringer is made up of two members only, which slide upon each other the same as stringers 1 and 2 to secure the longitudinal adjustment, and the supporting-jacks operate thereon in like manner. In side elevation they are the same as the stringers shown in Figs. 2 and 4, omitting apertures 19.

My improvement thus provides a staging or false work possessing every requisite adjustment for the great diversity of work of this character. It may be quickly and conveniently placed in position, is secure after being positioned, and may be readily taken down, moved to, and adjusted to meet the
 30 requirements of another job.

With the usual wood false work if the concrete freezes the wood adheres thereto and cannot be removed until thawed, and, further, concrete floors cannot be economically
 35 laid on wood false work in cold weather, as wood is a poor conductor of heat when fires are maintained for keeping up the temperature. My improvements being constructed of comparatively-thin metal, the concrete is
 40 less likely to adhere when frozen than to wood; but if such adhesions occur they may be quickly broken up by a little artificial heat beneath the false work, as the same is effectively radiated by the metal floor-plates. In
 45 addition, floors may be laid in the coldest weather by use of a comparatively-small amount of artificial heat, owing to the heat-radiating properties of the metallic false work.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In improved false work, floor-sustaining stringers adapted to be supported at the ends by beams, each stringer being composed of
 55 two longitudinal overlapping sections, one section being slotted longitudinally, and the other section carrying transverse clamping-bolts which move in the slot, substantially as shown and described.

2. In improved false work, a plurality of stringers adapted to reach from beam to beam and be supported thereby, and horizontal angles or wings carried by the stringers, the angles or wings of adjacent stringers meeting to form a substantially-unbroken floor,
 65 substantially as shown and described.

3. In improved false work, a plurality of stringers adapted to reach from beam to beam and be supported thereby, horizontal angles or wings carried by the stringers, with the angles or wings of adjacent stringers meeting to form a substantially-unbroken floor, and cross-bars sustained by adjacent stringers immediately beneath said angles or wings, substantially as shown and described. 75

4. In improved false work, a stringer adapted to be sustained at the ends by the beams, the stringer being composed of two overlapping sections and each section comprising two longitudinal members, the members of one section lying close together and slotted longitudinally, the members of the other section slightly separated to overlap the outer sides of the slotted section, transverse clamping-bolts uniting the sections and movable in the slotted member, and an outwardly-projecting angle or wing carried by each member of each section, the wings of the slotted section overlapping the wings of the other section, substantially as shown and described. 80 85 90

5. In improved false work, a stringer adapted to be sustained at the ends by the beams, the stringer being composed of two overlapping sections, each section comprising two longitudinal members, the members of one section lying close together and the members of the other section separated to overlap said closely-lying members, the sections being adjustable longitudinally on each other, means for securing them in desired adjustment, and an outwardly-projecting angle or wing carried by each member of each section, the angles or wings of the closely-lying members overlapping the wings of the other members, substantially as shown and described. 95 100 105

6. In improved false work, a stringer, jacks at the ends of the stringer, and a vertical succession of beam-engaging points on each jack, substantially as shown and described.

7. In improved false work, a stringer, jacks at the ends of the stringer, and a vertical succession of beam-engaging notches in each jack, substantially as shown and described. 110

8. In improved false work, a stringer, jacks vertically adjustable on the stringer, each jack being provided with a vertical succession of beam-engaging points, substantially as shown and described. 115

9. In improved false work, stringers, beam-engaging jacks secured to the stringers and adapted to stand either vertical or at an angle to the plane of the stringers, and boards for molding the inner faces of the floor-haunches adapted to be sustained by the jacks, substantially as shown and described. 120 125

10. In improved false work, a stringer, and a reversible jack removably secured to the stringer, one edge of the jack being adapted to be sustained by a beam, and its opposite edge provided with a spike projection, substantially as shown and described. 130

11. In improved false work, stringers, sup-

porting-jacks, and haunch-molding boards adapted to unite and brace adjacent stringers against each other, substantially as shown and described.

5 12. In improved false work, stringers each formed of overlapping sections adjustable longitudinally on each other, overlapping laterally-projecting angles or wings on the stringers forming floor-sections, and jacks secured to the stringers, each jack having a succession of beam-engaging points, substantially as shown and described.

10 13. In improved false work, a stringer adapted to be sustained at the ends by floor-beams, the stringer being composed of two overlapping sections and each section comprising two longitudinal members, means for securing the overlapping sections together in proper adjustment, and an outwardly-projecting an-

gle or wing carried by each member of each section, substantially as shown and described. 20

14. In improved false work, bay-spanning members, and haunch-molding boards supported by adjacent members and bracing the latter against lateral strains, substantially as shown and described. 25

15. In improved false work, bay-spanning members, and molding-boards adjustable to form either straight or tapered haunches, substantially as shown and described. 30

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JEFFERSON L. LECHNER.

Witnesses:

J. M. NESBIT,

B. W. HOFFSTOT.