No. 785,289. PATENTED MAR. 21, 1905.

T. J. CAMPBELL.

OUTSIDE HANGING SCAFFOLD.

APPLICATION FILED APR. 28, 1904.

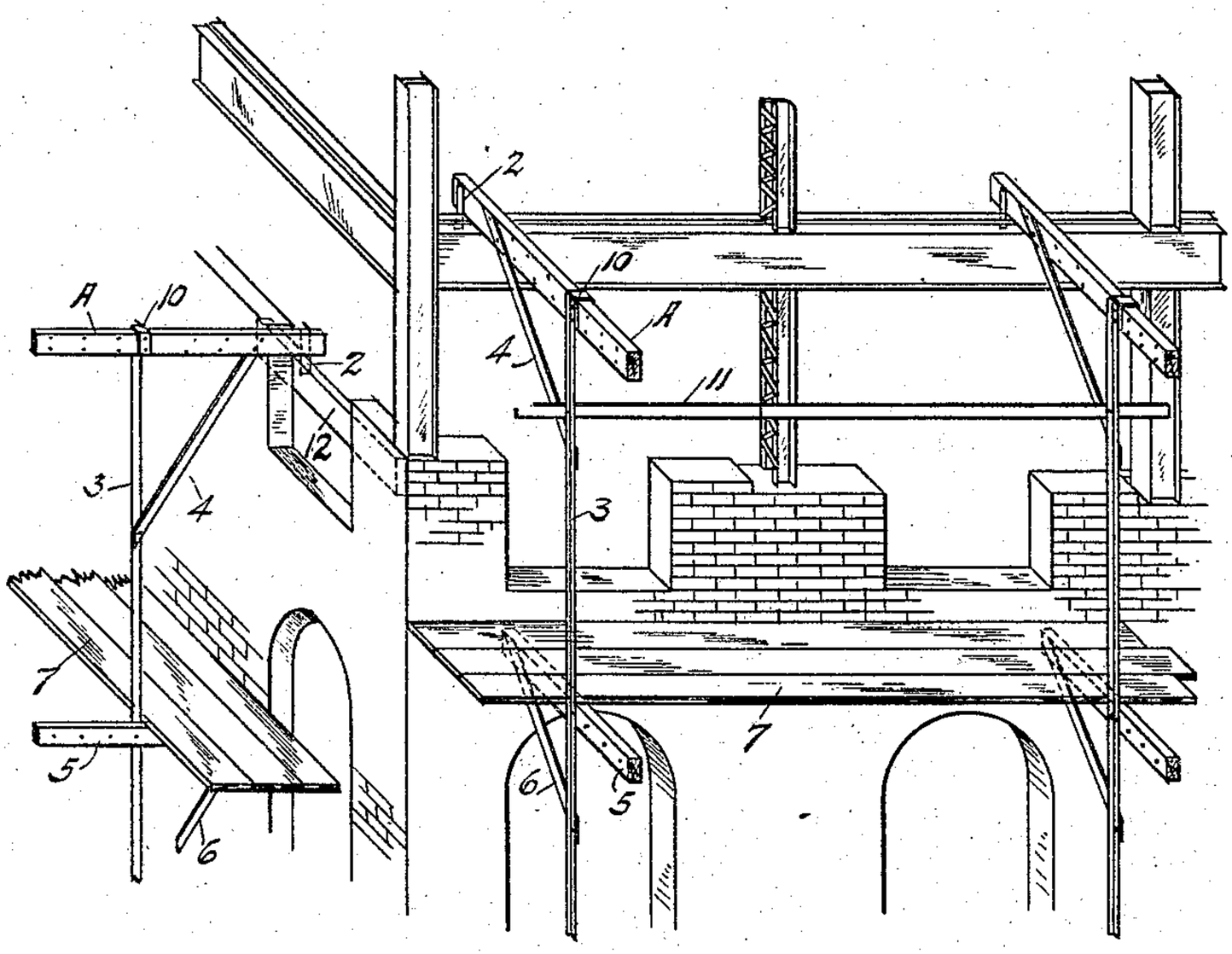
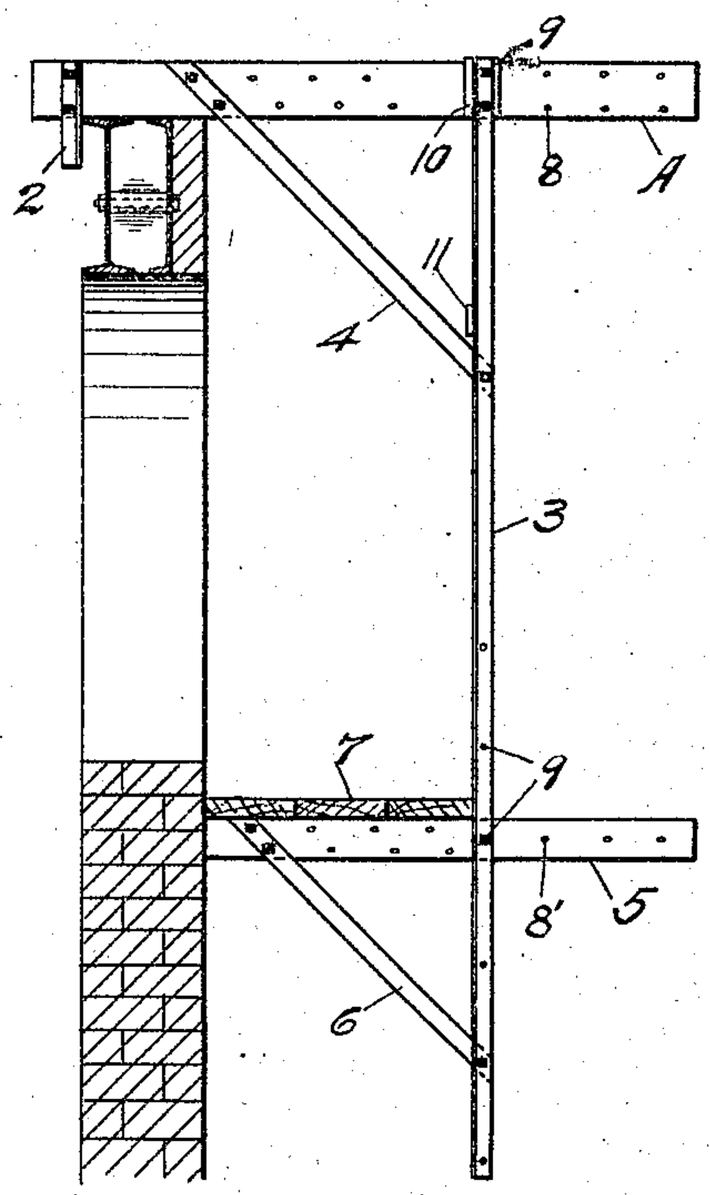


FIG. 1.

FIG. 2.

FIG. 3.



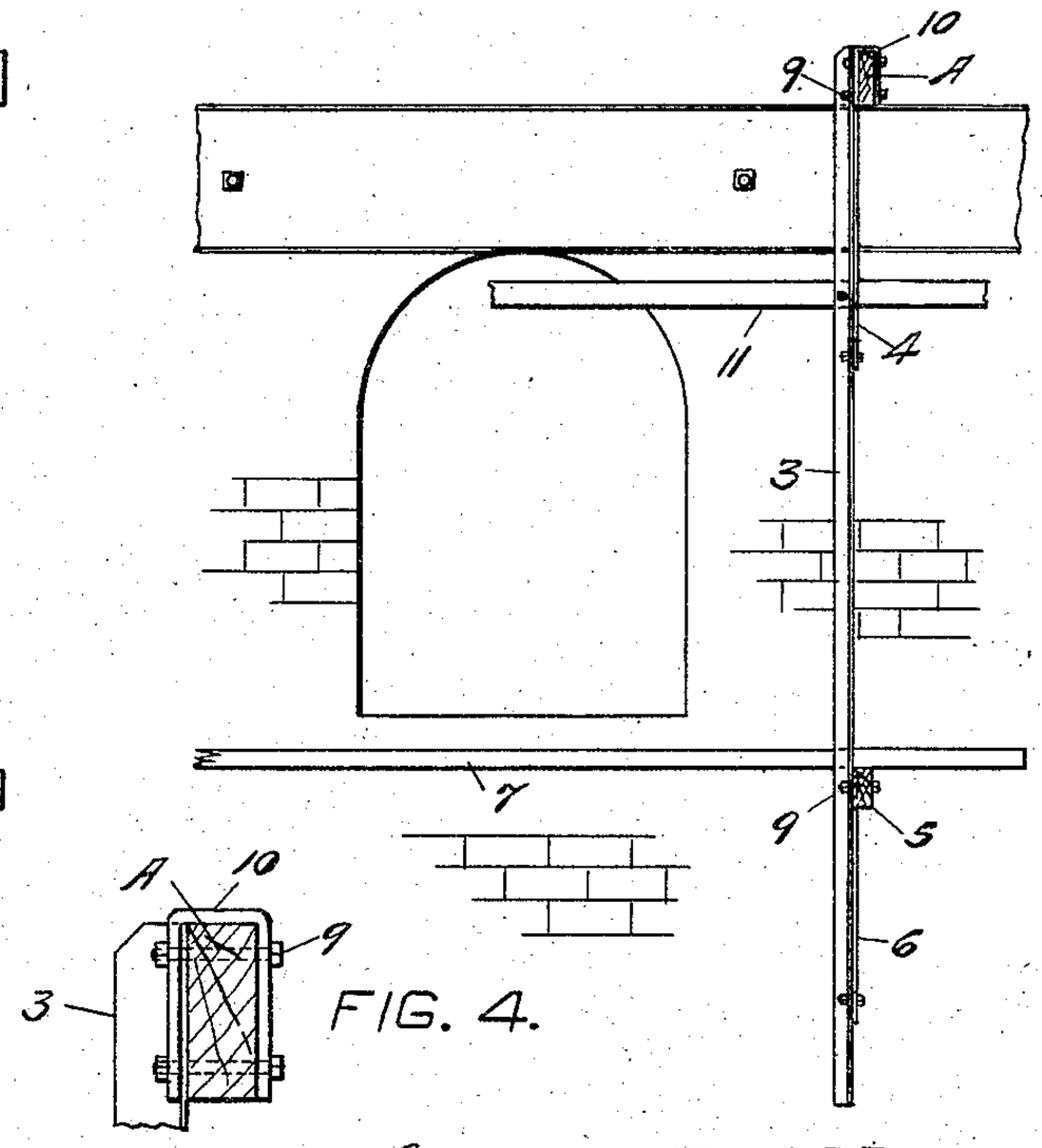


FIG. 4.

WITNESSES,
Chas. E. Chapin.
J. H. Morse

INVENTOR,
Thomas J. Campbell
By Geo. P. Strong Atty

No. 785,289. Patented March 21, 1905.

UNITED STATES PATENT OFFICE.

THOMAS J. CAMPBELL, OF SAN FRANCISCO, CALIFORNIA.

OUTSIDE HANGING SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 785,289, dated March 21, 1905.

Application filed April 28, 1904. Serial No. 205,341.

To all whom it may concern:

Be it known that I, THOMAS J. CAMPBELL, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Outside Hanging Scaffolds, of which the following is a specification.

My invention relates to improvements in outside hanging scaffolds for the use of brick-masons and the like in the construction of high buildings or so-called "sky-scrapers." Its object is to provide a convenient, safe, simple, and portable outrigging or suspended platform for use in high-building outside wall construction to assist the stone or brick mason over particularly difficult places where by reason of the ironwork or depth of the floor-beams it is almost or quite impossible to lay the bricks from the inside.

It is a matter of considerable difficulty in modern fireproof building construction to successfully scaffold the building so that the workmen can work safely in building up the brick walls after they rise a certain height above any floor-level. On very high buildings it is out of the question to rear a scaffolding from the ground. It is customary now to rear the steel columns and framework and put in the floor-arching in advance of the mason-work, and where the I-beams and flooring are very deep it is almost impossible for a man to reach over from the top or work "overhanded," as it is termed, and lay in the courses of brick. Hence he is forced to prepare some means of getting outside of the wall in order to reach up to the accessible point whence he receives his materials, which point is the floor above. To do this, outriggers of heavy and bulky timbers are usually run out of the windows or secured to the flooring above and a platform supported or hung on these timbers. This takes a great deal of time and labor, and should the window-openings be far apart or the wall a blank wall without openings ropes have to be employed and fastened to the framework some distance above the workmen. This latter means, as well as all swinging staging, is very dangerous.

Having reference to the accompanying drawings, Figure 1 shows a building in course of erection with scaffolding attached. Fig. 2 is an end elevation of scaffolding. Fig. 3 is a front elevation of same. Fig. 4 is a detail of a clip.

A represents a timber or outrigger having a downwardly-extending hook portion 2 secured fixedly to it at one end, adapted to be engaged over an I-beam or other suitable part of the framework adjacent to the wall. If the arching is already put in, a plank may be run from column to column and the outrigger hooked over this plank, thus requiring neither bolts, clamps, nor other special appliances to hold it. From the outer end of the outrigger A is suspended a single bar 3, disposed a distance from the wall equal to the desired width of the platform. The bar 3 is supported rigidly at right angles to the outrigger by means of a brace 4 and parallel to the wall by means of a bracket comprising a horizontal arm 5 and a lower brace 6. Two or more outriggers and their associated suspended bars and brackets are used and spaced a distance corresponding to the length of the planks 7, which are laid on the brackets to support the workmen.

If desired, the outriggers A may be perforated, as at 8, to permit the bars 3 being at any desired point from the wall corresponding to the necessary width of the platform-floor, and the bars 3 may be perforated along their length to permit the height of the platform relative to any floor-level being varied, suitable removable pins 9 being employed at the several joints. If desired, the bracket-arms may be made extensible by perforating, as shown at 8′.

This scaffold structure may be of wood or iron. Preferably the outriggers are of wood for matters of lightness and economy, and the suspended bars of angle-iron. In securing the bars to the wooden outriggers I employ the U-shaped perforated straps or clevises 10. When the pins 9 are slipped through the bars, outriggers, and clevises, the weight of the suspended platform is carried by the clevises and the danger of the outriggers splitting where the pins pass through is obviated. In

consequence a two-by-six scantling laid edgewise serves every purpose of an outrigger.

This scaffold is hung on the wall and used whenever the workmen come to a point in the wall construction where it is impossible for them to reach from the inside to lay the brick. As soon as the occasion for it has passed the hanger is unhooked and removed and the upbuilding of the wall proceeds from the inside till need of it again arises.

Should new windows be desired cut in an old building at any elevation, an opening is made in the wall, the window-frame put in position, a plank, as 12, nailed across the opening, and the hanger hooked onto this plank, with the ends of the brackets supported against the outside vertical wall-surface. The workman may then lay his floor-planks on the brackets and go on it in perfect safety.

A rail 11 may be laid in the angle between the braces 4 and bars 3 to steady and lend confidence to the men in their elevated position.

The greater the weight on the scaffold the harder are the ends of the brackets pressed in against the wall and the more fixed and immovable does it become.

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

1. The combination in an outside hanging scaffold, of a plurality of horizontal outriggers provided with means at one end for engaging them loosely with a part of the building inside of the wall, bars rigidly secured to the outer portions of the outriggers, approximately horizontal brackets secured to the bars and having their inner ends to abut against the outside of the wall, diagonal braces fixed to the bars and to the inner ends of the outriggers and brackets, and a flooring laid on said brackets.

2. The combination in an outside hanging scaffold, of a plurality of horizontal outriggers provided with means at the inner ends for engaging them loosely with a beam or fixed part of the building inside of the wall, vertical bars rigidly fixed to the outer portions of the outriggers, approximately horizontal brackets having outer portions fixed to the bars and inner portions to abut against the outside of the wall, said outriggers, bars and brackets provided with perforations whereby the parts are adjustable relative to the wall of the building and diagonal braces connecting the inner portions of the outriggers with the bars and other braces connecting the inner portions of the brackets with said bar, flooring laid on the brackets, and a rail laid in the angle between the bars and upper braces.

3. The combination of a plurality of outriggers provided with means to attach them to a fixed part of the framework, bars suspended from said outriggers, the latter and said bars having corresponding perforations, a U-shaped clip slipped over an outrigger and the end of a corresponding bar and a pin or bolt passed through said perforations, said U-shaped clip serving to relieve the strain of said pins or bolts on the outriggers, brackets carried by said suspended bars and a flooring or equivalent carried by said brackets.

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

THOMAS J. CAMPBELL.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.