

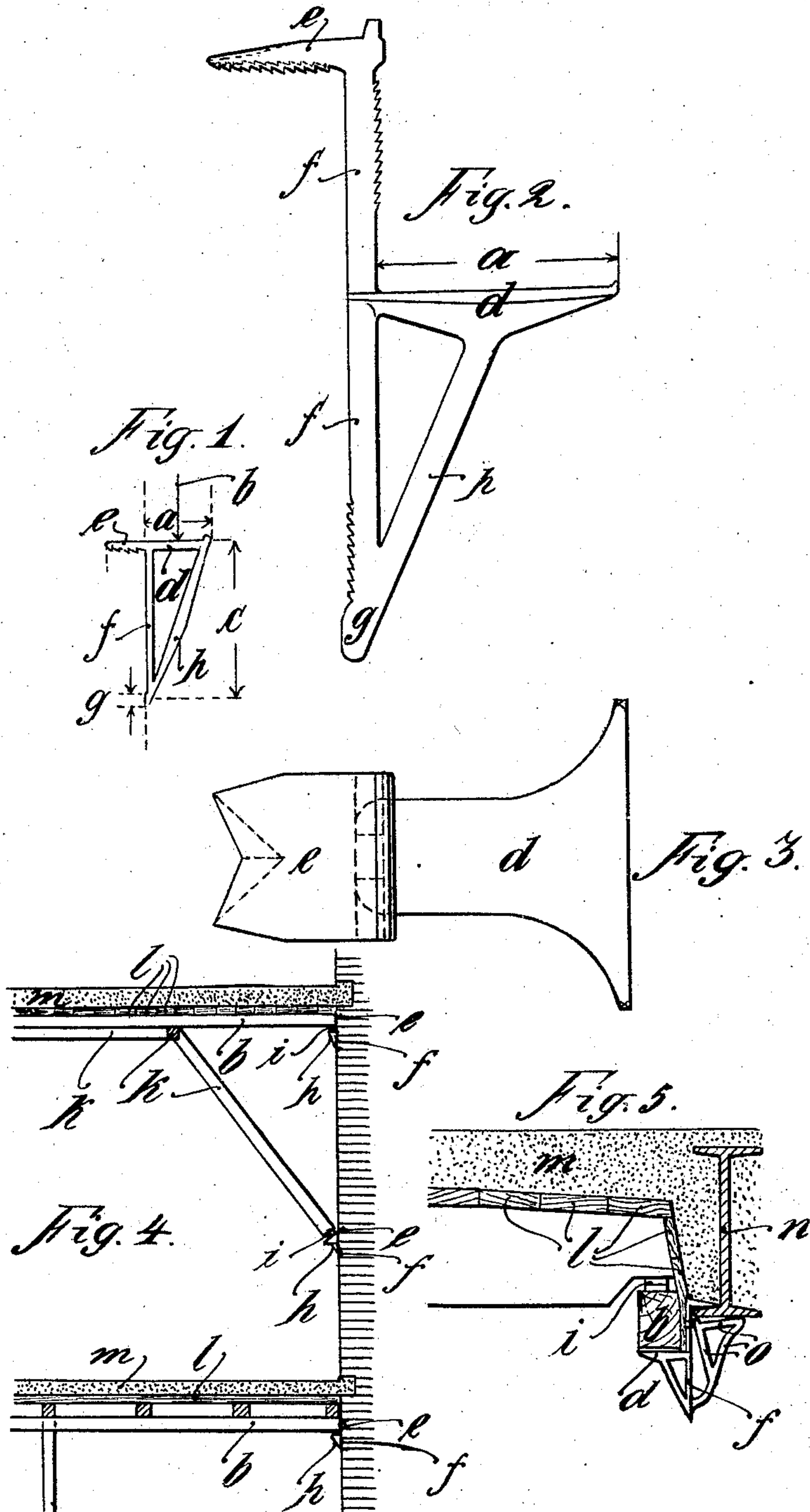
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E. LORENZ.

BRACKET FOR SUPPORTING SCAFFOLDING AND THE LIKE.

APPLICATION FILED MAY 1, 1906.



Witnesses:
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UNITED STATES PATENT OFFICE.

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BRACKET FOR SUPPORTING SCAFFOLDING AND THE LIKE.

No. 850,662.

Specification of Letters Patent.

Patented April 16, 1907.

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To all whom it may concern:

Be it known that I, ERNST LORENZ, engineer, a subject of the Emperor of Germany, residing at 56 Bülowstrasse, Berlin, Germany, have invented certain new and useful Improvements in Brackets for Supporting Scaffolding and the Like; and I do hereby 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.

The subject of my invention is a bracket for supporting scaffolding and centering of all kinds, and in particular that used in the construction of concrete ceilings.

The new bracket can be manufactured as a wholesale article at a very cheap rate, and its employment greatly facilitates the erection of the scaffolding, and thus enables concrete ceilings and the like to be constructed at a considerably lower cost than heretofore.

The improved device is of such construction that it has simply to be hammered into the joints of the brickwork or merely hung upon the last row of bricks or the like, whereupon it will present a perfectly firm support even for very heavy loads.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cheap scaffold's bracket. Fig. 2 is a like view, drawn to a larger scale, of a superior type of bracket. Fig. 3 is a plan of Fig. 2. Fig. 4 is a vertical section through a portion of a building, showing three of the brackets illustrated in Figs. 2 and 3 in use. Fig. 5 is a vertical section through a portion of a concrete ceiling from the girder of which there is hung a bracket of the kind shown in Figs. 2 and 3 in conjunction with an auxiliary back member.

The new bracket may be made of steel, tempered cast-iron, or the like. Its great supporting power is attained by the ratio between the dimension a (the depth of the sole d , which supports the scaffolding-beams b or the like) and the dimension c , (the height of the sole,) being such that the tensile strain, due to the weight of the beams b , which tends to pull out the bracket in the direction of the sole d , is less than the friction due to the load between the anchor-plate e and the brickwork even after reduction of the friction at the supporting-surface g of the wall plate or members f . The dimensions of the bracket can also be reduced if the anchor-plate e is roughened or toothed on its under side, and

the surface g is given the form of a smooth swell, while the dimension c is so selected that the part g lies against a smooth brick, and not against a rough or ridged joint or the like. h is a stay. Still greater economy of material is secured by a bracket of the form shown in Fig. 2, which also sits more firmly. The sole d is here lower and is more centrally stiffened by the stay h , so that the load b is removed from the weak edge of the wall.

Referring to Figs. 4 and 5, i are wedges. k is a strut-frame; l , planking; m , the concrete ceiling; n , a girder; o , an auxiliary member. Instead of wedges i a set-screw or the like might be provided on the sole d . For the purpose of securing the beam b a bent member may be passed through the parts $d f h$, perforated for the purpose, and secured to the beam b . By means of the improved bracket the higher story of a building may be planked independently of the lower stories, as shown in Fig. 4, whereupon the ceiling of the lower story can be constructed without danger and independently of the rest of the work. In this manner girderless iron and concrete ceilings (which are well known to be preferable to beam ceilings) can be employed also for small buildings and for dwelling-houses, since building can go on without interruption.

It must be clearly understood that I in no wise desire to restrict myself to the precise details of the brackets shown, since these may be varied without departure from the essential feature of the invention. The shape of the sole d , for instance, and of the anchoring member (shown as a plate e) and back f may be any desired, depending upon the class of work for which the bracket is required.

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

1. A rigid bracket for supporting scaffolding and the like, comprising, a back, having at the top an integral member adapted when laid upon a wall or the like to hold the loaded bracket without the aid of a special counter member; a sole integral with the back; and a stay extending from the lower part of the back to the sole and integral with these parts; substantially as described.

2. A rigid bracket for supporting scaffolding and the like, comprising, a back whose bottom presents a smooth swelling and whose top has an integral member, roughened

on the under face, adapted when laid upon a wall or the like to hold the loaded bracket without the aid of a special counter member; a sole integral with the back; and a stay extending from the lower part of the back to the sole and integral with these parts; substantially as described.

3. A rigid bracket for supporting scaffolding and the like, comprising, a back, having at the top an integral member adapted when laid upon a wall or the like to hold the loaded bracket without the aid of a special counter

member; a sole integral with the back and projecting from it at some distance below the top; and a stay extending from the lower part of the back to the central portion of the sole and integral with these parts; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ERNST LORENZ.

Witnesses:

HERMANN LOCHNOR,
HANS MÜLLER.