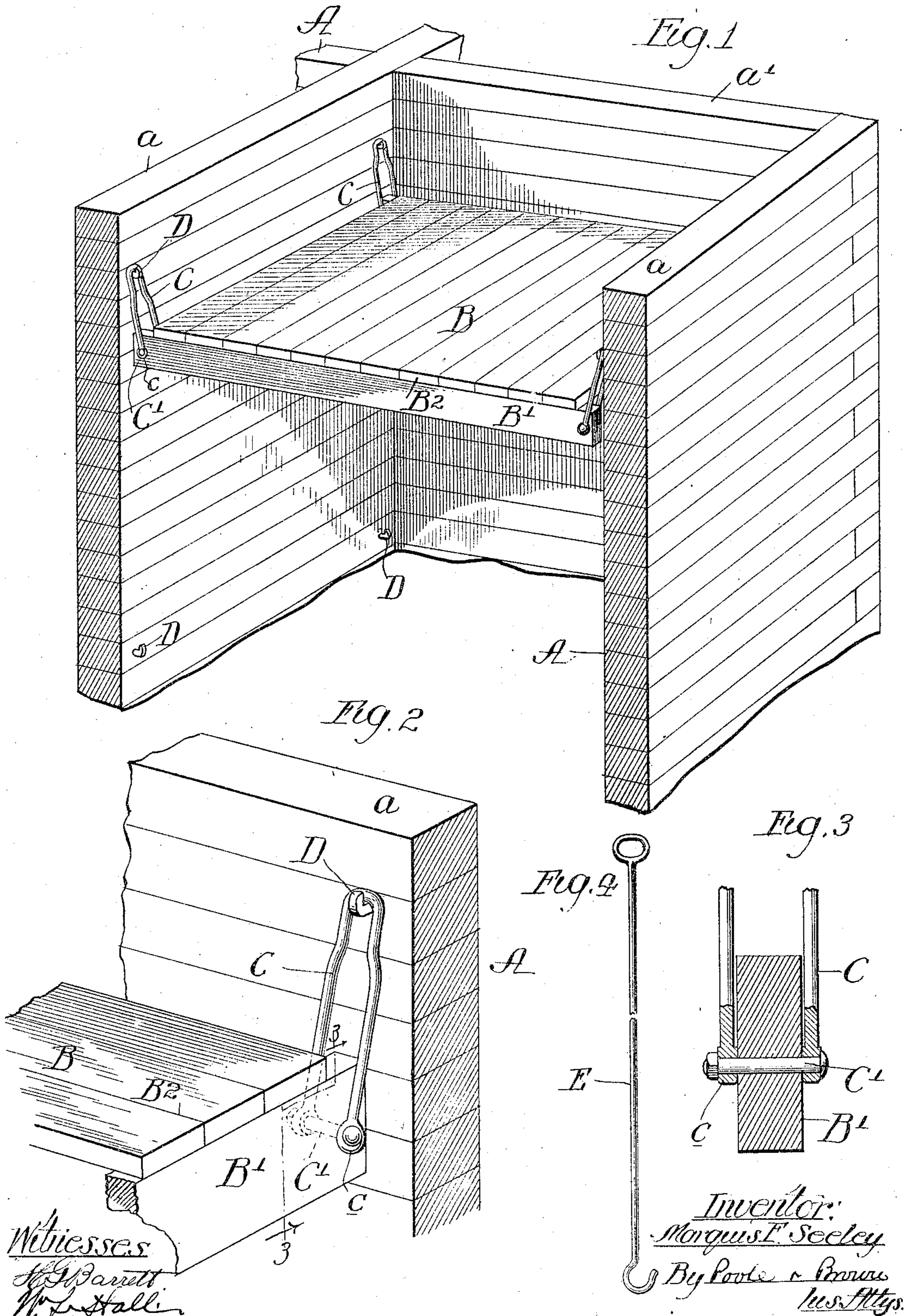


No. 789,174.

PATENTED MAY 9, 1905.

M. F. SEELEY.  
SCAFFOLD.

APPLICATION FILED JAN. 21, 1904.



# UNITED STATES PATENT OFFICE.

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## SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 789,174, dated May 9, 1905.

Application filed January 21, 1904. Serial No. 190,058.

*To all whom it may concern:*

Be it known that I, MARQUIS F. SEELEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Scaffolds; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in scaffolds used in building grain-elevator bins, smoke and air flues, shafts, and the like or for work on the exterior of buildings.

The invention is herein illustrated as designed for use in constructing the walls of a cribbing structure of that kind consisting of wooden strips laid one upon the other and overlapped at their ends at the corners of the structure. Said structures are common in the construction of the bins of grain-elevators and the like.

The object of the invention is to provide an improved scaffold and support therefor so constructed as to permit the scaffold to be readily moved upwardly from time to time as the building of the structure progresses and the supports for which may be readily affixed to the walls of the structure which is being built and which may be so made as to render it unnecessary to remove the same after they have served their purpose of supporting the scaffold in its several positions.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view, broken away, of a cribbing structure, showing my improved interior scaffold supported therein. Fig. 2 is an enlarged perspective view showing more clearly the manner of suspending the cribbing from the structure-wall. Fig. 3 is a detail sectional view taken on line 3 3 of Fig. 2. Fig. 4 illustrates an implement by which the scaffold may be readily raised from one position to the next higher position.

As shown in the drawings, A designates a

cribbing structure which may be employed for any suitable purpose—as, for instance, an elevator-bin—and comprising side walls *a a* and end walls *a'*, one of which is shown in Fig. 1. The strips constituting the walls are laid in successive vertically higher courses, beginning at the bottom, and all of the strips constituting a complete course are usually laid before any of the strips constituting the next higher course are placed in position.

B designates as a whole my improved scaffold, which is located inside of and supported on the walls of the structure and upon which the workmen stand while laying or nailing to each other the strips or bars constituting the structure. The scaffold consists of a horizontal platform comprising cross-pieces *B'*, one at each end of the scaffold, (and there may be intermediate cross-pieces, if desired,) and boards *B''*, resting thereon and constituting the platform. The said scaffold is made smaller than the dimensions of the cribbing structure to permit the same to be readily moved vertically therein.

The platform is suspended from the walls of the structure through the medium of hangers *C*, which are loosely connected at their lower ends with the cross-pieces *B'* of the scaffold-platform and engage at their upper ends metal hooked spikes *D*, which are driven into the wall of the cribbing structure and by which the scaffold is supported. As herein shown, said hangers *C* have the form of bails consisting of metal bars bent into *U* form and provided at their lower ends with eyes *c*. The arms of each bail or *U*-shaped hanger pass one on each side of each end of each cross-piece and is attached to said cross-piece by means of horizontal holding-bolts *C'*, extending through said eyes and transversely through the cross-piece. There is one hanger located at each corner of the scaffold-platform, as herein shown. If the platform be made of considerable length, an intermediate cross-piece *B'* may be employed and a third pair of hangers connected with the ends thereof and supported on intermediate hooked spikes *D*.

In the use of the scaffold after the scaffold has been once placed in the cribbing structure

it serves as a support for the builders or operatives while laying the courses constituting the cribbing structure. After the walls have reached a height from which it is inconvenient  
 5 to continue the laying of said courses new spikes D are driven into the walls near the top thereof and the scaffold is raised to engage the hangers C with the newly-driven spikes. In raising said scaffold the operatives or build-  
 10 ers climb upon the upper edges of the walls and release the hangers from the spikes D, upon which the scaffold has been supported, and draw the released scaffold upwardly and engage the hangers with the newly-driven  
 15 spikes, there being one man or more at each corner of the scaffold. Conveniently implements E, one of which is shown in Fig. 4, may be employed for raising the scaffold. Said implement consists of a long shank or  
 20 rod having at one end a hook for engaging the hangers C and at its other end a loop or handle by which it may be manipulated. Thereafter the scaffold serves as a support for the operative while laying the courses con-  
 25 stituting a continuation of the structure, and the scaffold is raised from time to time in like manner until the structure is completed. It will be understood that the scaffold is made sufficiently smaller than the interior diameter  
 30 of the structure to permit the same to pass the supporting-spikes D, which latter need project but a little distance from the inner faces of said walls. The hinged or pivotal connection of the hangers with the support-  
 35 ing-pieces of the platform enables the upper ends of the hangers to be swung or moved in a direction toward or from the wall of the structure and readily released from or en-  
 40 gaged with the holding or supporting spikes driven into said walls.

Heretofore it has been a common practice in the building of grain-bins to support interior scaffolds of this character upon short pieces of wood which are built into the wall of the  
 45 structure as parts of the courses of the cribbing-strips while the courses constituting the walls are being laid, and after said scaffold has been raised from one position to the next higher position said wooden supporting-bars  
 50 (which are sometimes known as "puds") are sawed off flush with the face of the wall. This has been rendered necessary on account of the fact that such wooden supports have been nec-  
 55 essarily made of the same size as the strips used for building the structure, so that they may be built into the wall crosswise between the ends of adjacent longitudinal strips which are at either side thereof. When the sup-  
 60 ports are so made, they project so far from the wall and they are so large that their permanent presence in the finished bin or structure is objectionable. Moreover, their inser-  
 65 tion requires the expenditure of considerable time, which adds materially to the cost of building the cribbing. In the novel construc-

tion herein described the metal spikes D, employed for supporting the scaffold, may with-  
 out inconvenience remain in the walls, as their size is such that their presence will do  
 no harm. In the use of the puds described  
 70 for supporting the prior scaffolds it has been necessary, inasmuch as the ends of the cross-pieces rest upon the puds, to cant the plat-  
 form or shift it sidewise to enable the ends  
 75 of the cross-pieces to pass the puds while raising it from one position to a next higher po-  
 sition—a work requiring considerable time and attended by not a little danger, owing to the exposed position of the workmen or oper-  
 80 atives. Moreover, any shifting of the plat-  
 form when in use may result in the ends of the cross-pieces slipping off of the puds, with the  
 result of the falling of the platform and dan-  
 85 ger to the life or limbs of the workmen. Fur-  
 thermore, each new set of puds have hereto-  
 fore been placed at the extreme top of the  
 walls, so that when the platform is placed  
 thereon at each raising of the same the first  
 few courses laid thereafter in the continua-  
 90 tion of the building of the walls are at or be-  
 low the level of the platform, thereby making the work of laying said courses not only in-  
 convenient, but slow, and owing to the cost  
 and trouble of inserting the puds and the in-  
 95 convenience attending the raising of the plat-  
 form it is common practice for the workmen to continue the work on the structure after  
 each setting of the scaffold until the walls are  
 as high above the platform as it is possible,  
 thereby making the work slow at the end as  
 100 well as the beginning of the particular part  
 or section of the structure which is built from one setting of the scaffold. When puds are  
 used, moreover, it is necessary at considerable  
 105 inconvenience to saw the puds from the wall  
 of the structure after the scaffold has been  
 raised to a new position. With my improved  
 construction, on the other hand, the spikes for  
 supporting the platform may be easily and  
 110 quickly driven. The engagement of the bails  
 with the spikes is such that the bails cannot  
 be disengaged from the spikes without first  
 lifting the platform, so that the platform is  
 reliably and safely supported, and the plat-  
 115 form may be very quickly and readily raised  
 from one position to another. It is therefore  
 not necessary to raise the same so high each  
 time it is shifted as to make the work of  
 building the first courses from the new posi-  
 120 tion of the platform inconveniently low. By  
 reason of the relatively small size of the sup-  
 porting-spikes and their slight cost it is not  
 necessary to remove the same, while such  
 spikes do not interfere with the free raising  
 of the platform, and the bails or hangers may  
 125 be quickly and easily disengaged from and re-  
 engaged with the spikes in the act of raising  
 the platform.

By reason of the fact that the structure re-  
 130 ferred to during the building thereof rises

upwardly by successive steps it is not practicable to suspend the platform from the top of the structure, inasmuch as such arrangement would require constant shifting of the scaffold as the successive courses are laid. The arrangement herein disclosed affords an effective and safe means of suspending the platform, while making it possible to build a considerable vertical length of the structure at one setting of the scaffold.

I claim as my invention—

An inside scaffold for building structures such as bins comprising a platform, a plurality of sets of headed spikes adapted to be driven into the walls of the structure in successively higher planes as the erection of the structure progresses, and projecting into the interior space of said structure, hangers or bails connected at their lower ends with the

platform, and adapted to swing inwardly and outwardly at their upper ends to engage the headed spikes of a set whereby the platform is supported on said spikes and whereby said hangers may be readily disengaged from one set of spikes and raised into suspending engagement with a higher set, said platform being made sufficiently smaller than the interior of the structure to permit it to be freely raised past the headed spikes when raised from one set of spikes to another higher set.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 13th day of January, A. D. 1904.

MARQUIS F. SEELEY.

Witnesses:

C. CLARENCE POOLE,  
GERTRUDE BRYCE.