

CAVANAGH *V.* PIKE *ET AL.*

*Circuit Court, D. Massachusetts.*

July 22, 1890.

PATENTS FOR INVENTIONS—INFRINGEMENT—PILE-DRIVERS.

Patent No. 205,244, granted June 25, 1878, to George H. Cavanagh, for an improvement in pile-drivers, was for an extensible guide way adapted to be projected or extended below the platform or frame, to permit the hammer to follow and operate upon the head of the pile, to drive it below the level of the base of the pile-driver. *Held*, that this is not infringed by patent No. 284,282, granted September 4, 1883, to Roys J. Cram, for a steam pile-driver having a combined cylinder and hammer, the whole within a frame having on each side continuous vertical grooves adapted to work in guides formed on, or rigidly fixed to, the uprights.

*James H. Lange* and *Fred. P. Fish*, for complainant.

*William B. H. Dowse*, for defendants.

CARPENTER, J. This is a bill in equity brought to enjoin the respondents from infringing letters patent No. 205,244, granted June 25, 1878, to the complainant, for improvement in pile-drivers. The claims of the patent are as follows:

“(1) In a pile-driver, an extensible guide-way adapted to be projected or extended below the platform or frame, substantially as and for the purpose described. (2) The uprights, *b, b*, combined with a vertically adjustable guide-way adapted to be lowered below the base of the driver, to permit the hammer to follow and operate upon the head of the pile, to drive it below the level of the base, as may be desired.”

In the construction of a pile-driver, it is found to be a practical necessity that the uprights within which the hammer works, and such immovable guide-way as may be attached thereto, shall not extend to any considerable distance below the frame-work or platform of the pile-driver. The purpose of this invention is to provide means whereby piles may be driven to any desired point, within certain limits, below the level of that platform. The means employed for this purpose before the invention of the complainant appear to have been as follows: (1) To apply to the upper end of the pile being driven a follower against which the hammer might strike; (2) to bolt supplemental guide-ways to the uprights in line with the stationary guide-ways; (3) to cause the hammer, in falling, to project for some portion of its length below the ends of the uprights and stationary guide-ways. In the case of steam pile-drivers, wherein a cylinder and piston-rod are carried on the hammer, and included with it in one rigid frame-work, the length of the frame-work is such as to allow the fall of the hammer to a point considerably below the ends of the guide-ways. Examples of such pile-drivers are seen in patents No. 160,781, issued March 16, 1875, to Thomas T. Loomis; reissue No. 7,586, issued April 3, 1877, to Thomas T. Loomis; and No. 185,458, issued December 19, 1876, to Thomas M. Skinner. In addition to these methods which appear to have been in use, there was published the patent

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No. 134,412, issued December 31, 1872, to Charles H. Williamson, and another, which shows a rod and a weight with a hole in the center,

for the purpose of sliding the weight up and down on the rod, and which is evidently so constructed that the guiding rod may be extended below the platform. The English patent No. 2,562, granted September 18, 1862, to John Nymen Woodford for driving and drawing piles, contains this statement:

“Between the upright bars or plates, there is a space in which there are other uprights consisting of two parallel plates or bars, which are capable of being slid up and down between the two first-mentioned upright bars or plates, so that when desired the uprights may be lengthened, whether when using it for a jib, or otherwise. Chains and pulleys are applied for winding up the monkey, drawing piles, and raising soil.”

The device used by the respondents is represented in patent No. 284,282, issued September 4, 1883, to Roys J. Cram. It is a steam pile-driver having a combined cylinder and hammer, called in the patent a “cylinder ram,” the whole within a frame having on each side continuous vertical grooves adapted to work in guides formed on, or rigidly attached to, the uprights. The respondents argue that the Woodford patent is a complete anticipation of the patent on which the complainant here sues. In the English patent the construction of the uprights, which are one element in the combination, is such that the weight cannot extend below their lower ends; and there fore the apparatus, as there shown, is not capable of the functions of the apparatus patented by the complainant. On the other hand, it is now evident that a slight modification of the uprights will allow the guide-ways to project below the lower ends of the uprights. Whether to make this modification involves invention, I Shall not, in this case, undertake to decide; because I am satisfied that, assuming the patent of the complainant to be valid, it must still be so construed that the apparatus used by the respondents will not be held to be an infringement.

If the complainant had for the first time produced a guide-way extensible below the ends of the uprights, then it might, perhaps, be said that to substitute guide-ways attached to the weight, and moving with it below the ends of the uprights, is only to provide an equivalent for the guide-ways movable and adjustable within a groove in the uprights so as to extend downward beyond the end of the uprights. But it appears that a guide-way extending below the uprights is shown in the patent to Williamson; and it also appears that a guide-way attached to, or, more properly speaking, forming a part of, the weight mechanism, is shown in the patents of Loomis and Skinner. In the patent No. 160,781, issued in 1875, the patentee says:

“With my invention the pile can be driven below the lower extremity of the leaders, for the arrangement of the frame guiding the hammer and the grooved cylinder is such as to allow the frame to extend below the leaders when found necessary, and still retain its original vertical position, which cannot be done with the pile-drivers now in use.”

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The complainant points out that the guiding groove or guide-way in the drawings of the Loomis and Skinner patents is not continuous for the whole length of the frame, and that therefore the frame cannot effectively

and safely extend so far as to disengage the grooves or guide-ways from the uprights. Assuming this to be true, there still does not appear to be any reason why the hammer on the Loomis device may not descend to a point where its upper surface is very slightly higher than the lower end of the uprights, and thus provide for driving the pile to a point substantially lower than the lower end of those uprights; and, if it be urged that even thus the hammer mechanism cannot, as in the respondents' device, descend to a distance below the end of the uprights nearly equal to its whole length, still it appears from a comparison of these patents that the method of carrying the weight below the uprights by means of guide-ways forming part of the weight mechanism is fully described in the Loomis patent, and shown in that patent, and also in the Skinner patent. The same method was, indeed, suggested by the practice, in the use of the old form of pile-driver, to allow the weight to descend by part of its length below the ends of the uprights, although it is, perhaps, true that the construction and operation of the flanges or guide-ways was not such as to make them a practically operative device for this purpose. The claim in the patent of the complainant cannot therefore be construed to cover such a device; and the bill must, therefore, be dismissed, with costs.