Case No. 6,156.

HART, B. & M. MANUF'G CO. v. SARGEANT ET AL.

{3 Ban. & A. 263;[1] 14 O. G. 45.}

Circuit Court, D. Connecticut. April, 1878.

PATENTS—PRIORITY—SPECIFICATIONS—MACHINERY FOB GRADUATING CARPENTERS' SQUARES.

1. The 3d claim of reissued letters patent No. 5,408, granted to plaintiffs as assignees of Horace K. Jones, May 13th, 1873, for improvements in machinery for graduating carpenters' squares, which claim is for "the construction of the tool and socket so that the edge of the tool fits into a V-shaped recess, the angle of which is in line with the working point of the tool, substantially as and for the purpose herein described," *held,* not to be anticipated by prior patents in which the V-shaped grooves were not so arranged as to take hold of the cutting edge of the tool, as it is essential to the claim that the angle of the V be in line with the working-point of the tool.

2. Nor is the 6th claim of said patent, which is for "the clamping device for holding squares of varying tapers to be graduated, consisting of the fixed jaw P, the rocking adjustable jaw

M, and the cam N, in combination, substantially as described," anticipated by prior patents for improved hand-vices which have no relevancy to a clamp which shall uniformly hold in proper position an article to be graduated by machinery.

3. The gist of the 5th claim of the said patent, "In a machine for cutting graduations on squares, etc., the combination of the gravers I and their holders H with cams G and springs d, for throwing the gravers out of action at predetermined periods of time during the stroke of the same to cut graduation-marks of varying lengths, substantially as described," is the "flying cut" as it termed in the specification, and is infringed by a machine in which there is but one graver, and in which the square is moved along by an intermittent feed, the mode of operation by which the cutting of the graduating-marks is effected being the same in both machines. *Held,* also, that this claim was not anticipated by a machine not having the "flying cut."

{In equity. Bill by the Hart, Bliven Mead Manufacturing Company against Sargeant Co. and Joseph B. Sargeant for an injunction and account}

Charles E. Mitchell and Benjamin F. Thurston, for complainants.

Charles F. Blake and John S. Beach, for defendants.

SHIPMAN, District Judge. This is a bill in equity, founded upon the alleged infringement by the defendants of reissued letters patent {No. 5,408}, dated May 13th, 1873, and granted to the plaintiffs, as assignees of Horace K. Jones, for improvements in machinery for graduating carpenters' squares. The original patent {No. 93,449} to the plaintiffs, then known as "The Hart Manufacturing Company," was dated August 10th, 1869.

The following were alleged to be the peculiar features of the invention:

First. The cutting of the graduation marks or lines commenced at the measuring-edge and from thence extended inward, instead of commencing at or near the centre of the square, whereby a clear and not a ragged cut was made at the measuring-edge, and danger of deviation from the proper point at the edge was avoided. This peculiarity had been anticipated by the invention of Herman Whipple, which was patented March 17th, 1857.

Second. The lengths of the lines graved were regulated by arresting the cutting action of the graver when in motion, and allowing it to continue its forward movement without cutting the square, making what is called a "flying cut" This peculiarity is thus further described in the specification: "The gravers … are operated in such a manner, by means of cams and springs, that the said gravers can be alternately thrown into and out of action during their-stroke, and remain in action for a predetermined period of time to cut graduation-marks of varying lengths. "The advantages of this mode of operation are that the lines are made of uniform depths, and that the inner end of the mark terminates abruptly, and that the chip is lifted from the line by the onward movement of the graver.

Third. The tool rests in the holder in a groove of the exact inclination of its sides, into which it fits, and is pressed into its position by a set-screw. This insures the tool always being reinserted in the same position when removed from the machine for sharpening.

Fourth. A new clamping device is used which holds firmly squares of varying tapers. The device is thus described in the specification: "P is a fixed jaw for holding the square

to be graduated. This jaw is rigidly secured to the frame of the machine, so that its under face is parallel to the axis of the shaft D, or, in other words, parallel to that longitudinal line upon which the points of the series of gravers act. M is the movable jaw of the vice, which is held in place by screws passing through slots in the jaw M into the frame, so that said jaw is free to play up and down at either or both ends; and it is pressed up against the fixed jaw P (or against any object placed between said jaws) by means of the cam N, operated by the treadle O, to bear upon the jaw M near the middle of its length."

{Drawings of reissued patent No. 5,408 published from the records of the United States patent office.}

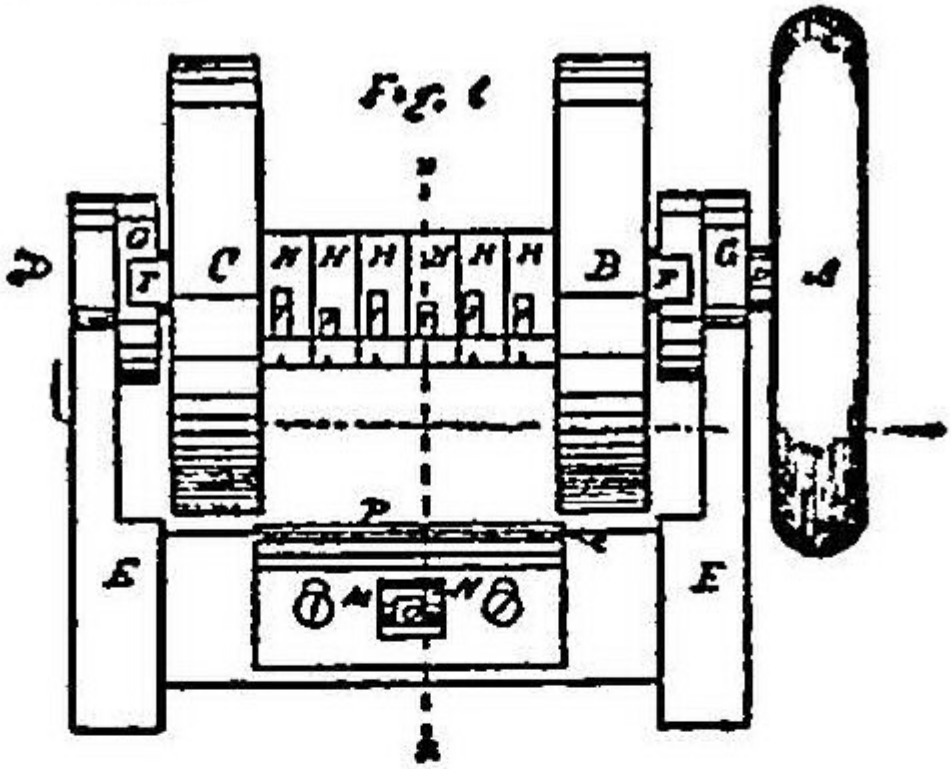
Fig. 1
C
B
E
E

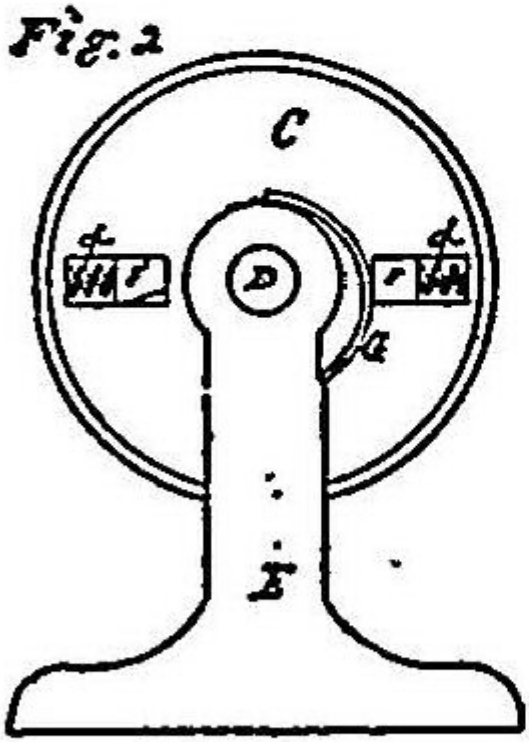
Fig. 2
C
E

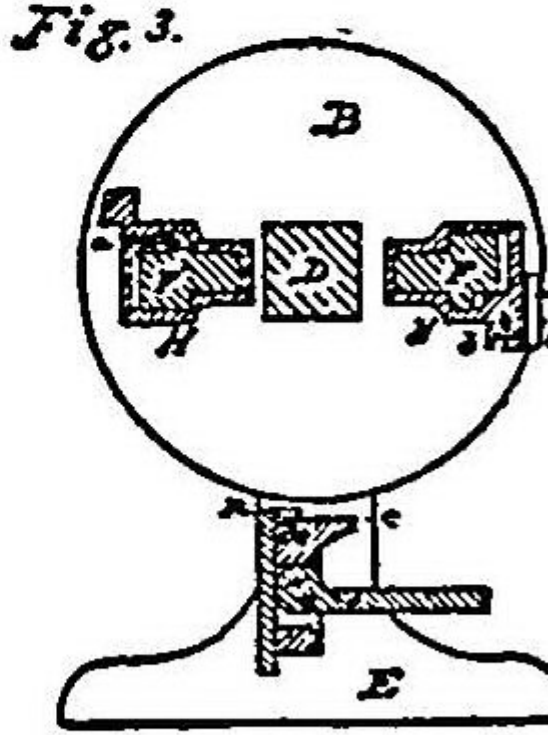
Fig. 3.
B
E

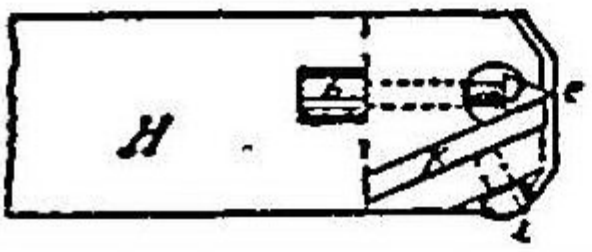
Fig. 4.
H

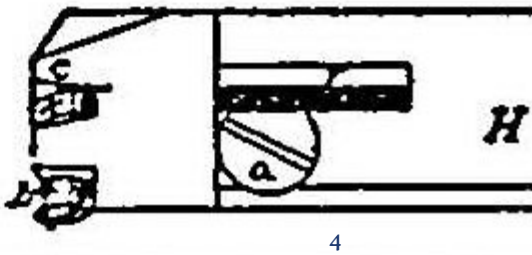
Fig. 5.
H

The gravers of plaintiffs' machine are arranged in sets, mounted on horizontal bars supported by two vertical revolving disks. There is a separate graver and separate tool-holder for each mark, so that, to graduate a square twenty-four inches long to sixteenths of an inch, three hundred and twenty-three gravers and tool-holders are required. One machine of this kind was in use at the factory of the plaintiffs for about eighteen

months. During this time, Charles S. Bement, a workman in their employ, undertook to make, and did make for them, an improved machine which had but one graver and one tool-holder, and in which the square passed under the tool by means of an intermittent feed. A patent for this machine, which the defendants are now using, was granted to Mr. Bement on June 14th, 1870.

The plaintiffs claimed upon the trial that the Bement machine infringed the 2d, 3d, 5th, and 6th claims of their patent. It is unnecessary to examine the question of infringement of the 2d claim, as it was conceded that it was anticipated by the Whipple invention. The three remaining claims are as follows: "3. The construction of the tool and socket so that the edge of the tool fits into a V-shaped recess, the angle of which is in line with the working-point of the tool, substantially as and for the purpose herein described. 5. In a machine for cutting graduations on squares, etc., the combination of the gravers I and their holders H with cams G and springs d, for throwing the gravers out of action at predetermined periods of time during the stroke of the same to cut graduation-marks of varying lengths, substantially as described. 6. The clamping device for holding squares of varying tapers to be graduated, consisting of the fixed jaw P, the rocking adjustable jaw M, and the cam N, in combination, substantially as described."

There is no question of infringement in regard to the 3d and 6th claims. The only question upon this part of the case is that of novelty. The defendants insist that the V-shaped recess of the third claim was anticipated by the patent of Millington and George, dated August 8th, 1854, and by the patent of Horace K. Jones, of January 31st, 1865, but in neither of these patents are the V-shaped grooves so arranged as, in the language of the plaintiffs' expert, to "take hold of the cutting-edge of the tool. They are not so arranged as to be invariably in the plane in which the tool makes its stroke." The essence of this claim is that the angle of the V is in line with the working-point of the tool. In the Millington and George patent the groove is on the upper side of the cutter, and in the Jones patent of 1865 the tool was held by the back and one side. The result was that in these two machines the cutting-edges were not necessarily placed accurately, and required frequent adjustment.

The defendants insist that the device which is mentioned in the 6th claim was anticipated by patents to Louis Tilliers, dated April 16th, 1861, and to Jeremy W. Bliss, dated November 30th, 1852. These were improved hand-vices, and have no relevancy to a clamp which shall uniformly hold in proper position an article to be graduated by machinery. Such a clamp must be so made that the square shall be necessarily placed in the position which is requisite to insure accuracy. In the plaintiffs' machine, the square was secured by a movable clamp from below the surface. This clamp pressed the square against a shelf, so that the fall of the square was parallel to the plane of action of the graver.

The defendants deny both infringement of the fifth claim and its novelty. The gist of the fifth claim is "the flying cut," as it is termed in the specification. This peculiarity is described in the claim to be the combination "for throwing the gravers out of action at predetermined periods of time during the stroke of the same to cut graduation-marks of varying lengths." The motion of the graver continues after cutting action has ceased.

The plaintiffs' machine contains an entire set of gravers. These revolve in a true circle, and the square remains stationary. The defendants' machine has but one graver, and the square is moved along by an intermittent feed. The graver returns to its work, after one mark has been made, in a flattened circle. The form of the two machines is necessarily very different, but the mode of operation by which the cutting of the graduating-marks is effected is the same. Each machine has a "flying cut." In each the cutting commences at the edge of the square, and the cutters are thrown out of their work during the stroke by the action of a spring and cam at a predetermined point, when cutting ceases and the forward motion of the cutters is continued. The differences in the mode of operation are formal and not substantial.

The defendants' machine is what it would naturally be from its early history. It was designed to be simply an improvement upon the plaintiffs' structure. It was made with the elder machine before the eye of the inventor. The leading features of the elder machine are retained, while a single graver was ingeniously substituted to do the work of a set of gravers.

Upon the question of novelty, the defendants rely upon the Whipple machine. It is only necessary to say that this machine does not have the flying cut. There is no progressive movement of the graver after it has ceased to cut. "The mark is terminated by arresting the forward motion of the carriage upon which the gravers are mounted." Differences of construction between the Whipple and plaintiffs' machines are pointed out by the plaintiffs, which it is not necessary to examine.

Let there be a decree for an injunction and an accounting in respect to the 3d, 5th, and 6th claims.

HART, The STEPHEN. See Cases Nos. 13,363 and 13,364.

[1] {Reported by Hubert A. Banning, Esq., and Henry Arden, Esq., and here reprinted by permission.}