

LIGOWSKY CLAY PIGEON CO. *v.* PEORIA TARGET CO. *ET AL.*

*Circuit Court, N. D. Illinois.*

June 30, 1888.

1. PATENTS FOR INVENTIONS—INFRINGEMENT—TARGET TRAPS.

The first claim of letters patent No. 252,230, granted January 10, 1883, to George Ligowsky, for a target trap, being “the combination in a target trap of a spring lever, a rack, and an adjustable tension arm, carrying the trigger, with which latter is engaged said lever,” is not infringed by a target trap not having such notched rack, and in which the adjustable tension is not produced by means of the tension arm, but by means of a screw which operates a rod attached to the lower end of a coiled spring.

2. SAME.

The seventh claim of letters patent No. 313,804, granted March 10, 1885, to Jacob Bloom, for “the combination with the pivoted throwing lever, and with the coiled actuating spring, by which it is given its sweep, of the support or core around which said spring is coiled, flanged circumferentially at its upper edge to confine the adjacent coil of the spring when the lever is set,” being merely for a flange on the top of the pillar around which the spring is coiled to keep it in place, and prevent it from slipping over the top of the pillar, must be supported, if at all, for the idea of making the flange integral with the pillar, and is not infringed by defendant’s device of a flat cap screwed on the top of the pillar for the same purpose.

3. SAME—EXTENT OF CLAIM.

Letters patent No. 802,691, granted July 29, 1884, to Benjamin Teipel, for a target trap, though not void for want of novelty, must be necessarily confined

to its specific devices, the proof showing very slight differences in construction between the Teipel trap and the ball traps patented by Warne, in June, 1880, and Stock, in February, 1884.

4. SAME.

The distinguishing feature of the Teipel patent being that it is adapted to the use of the longitudinally strained spring, and not the coiled spring, and the first and second claims being for the combination of the spring strained between the end of the lever and the point at which it is fastened to the bed-piece, they are not infringed by the defendant's device, in which such strained spring does not appear.

5. SAME.

Nor is fourth claim of the Teipel patent, which is: "In combination, the laterally-moving lever and the bed-piece or support and pivot, and the projection on the rear end of the lever, and behind the pivot, and stationary projection rightly located on a part of the trap other than the throwing lever, and catch located at the rear of said standard,"—infringed by defendant; for if this claim is not substantially anticipated by the Warne patent of June, 1880, defendant's device does not contain the "catch located at the rear of the standard" called for in this claim.

6. SAME.

Nor is the fifth claim of said patent, "the combination of the bed-piece having a uniform, smooth upper surface, containing a rear projection and lever, etc., infringed, as defendant's device is wanting the "bed-piece having a uniform, smooth upper surface," which is necessary in the Teipel patent to guide the throwing lever.

7. SAME.

Nor does defendant infringe the sixth claim of said patent: "In combination, the laterally-moving lever, bed-piece, the vertical piece, connected to and supporting the bed-piece and standard, the piece being pivoted near one end to said standard by a pivot, lying in a substantially horizontal plane, and means for adjusting the inclination of the piece, and consequently the inclination of lever, substantially as and for the purposes specified,"—as the vertical piece is wanting in defendant's device.

8. SAME.

Nor the tenth claim, which calls for the uniform, smooth upper surface of the bed-piece, and also the spring strained between the arm of the throwing lever and the projection upon the bed-piece, neither of which is found in defendant's device.

9. SAME.

Nor the twelfth claim: "In combination, the laterally-moving lever, its bed-piece, standard, having foot provided with set pivot and bottom plate or foundation piece, on which said foot rests and turns, substantially as and for the purposes specified;" nor by the thirteenth claim: "In combination, the laterally-moving lever, its bed-piece, standard, having foot provided with set pivot and bottom plate or foundation piece, on which said foot rests and turns, and means for adjusting the vertical inclination of the longitudinal axis of said lever, etc.,"—as the foundation piece therein called for is not used in defendant's device in any form, nor is anything used as an equivalent for it.

In Equity. Bill for infringement of patents.

*Parkinson & Parkinson*, for complainant.

*Coburn & Thacher*, for defendants.

BLODGETT, J. In this case the defendant is charged with infringement of three patents, as follows: Patent No. 252,230, granted January 10, 1882, to George Ligowsky,

for “a target trap;” patent No. 313,804, granted March 10, 1885, to the complainant, as assignee of Jacob E. Bloom, for “a ball trap;” patent No. 302,691, granted July 29, 1884, to Benjamin Teipel, for “a trap for throwing targets.” For brevity, these patents will be hereafter described as the Ligowsky patent, the Bloom patent,

and the Teipel patent. The object of the Ligowsky patent, as stated in the specifications, is “to furnish a trap especially adapted for throwing the peculiar form of flying target described in the reissued patent No. 10,122, being the same patent considered in the preceding case, [*Cloy Pigeon Co. v. Target Co., ante, 755,*] and is stated to consist essentially of a spring lever, target clamp, trigger, adjustable standard, and devices for maintaining said standard at any desired inclination. The device shown consists of a vertical standard, with means for adjusting it at any desired angle, upon which is placed a spiral spring coiled loosely around the top of the standard, with a throwing arm or lever projecting horizontally from the top of the coil; and projecting horizontally from the top of the standard, and above the spring, is a notched, flange, or “rack,” as it is called, and pivoted over this rack is a movable trigger bar, so arranged that it rests in the notches of this rack. The trap is set by bringing the lever or horizontal arm of the spring around until it is caught by the catch at the end of this trigger bar, where it is held until such time as the operator sees fit to release it for the purpose of throwing the target. By locating the trigger bar in the different notches of this rack, the tension of the spring can be adjusted so as to increase or diminish the projecting or throwing force of the trap. The patent contains five claims, but infringement is charged only as to the first, which is:

“(1) The combination, in a target trap, of a spring lever, a rack, and an adjustable tension arm carrying the trigger, with which latter is engaged said lever, as herein described.”

The defenses interposed are that complainant’s patent is void for want of novelty, and that defendants do not infringe. The defendant’s trap is formed by a vertical standard, with means for adjustment at any desired angle, having at its top a bar or bed-piece, upon which there is a short vertical projection or pillar, around which a spiral spring is coiled, and from the top of which a short horizontal arm projects, to which a bent lever, pivoted at its angle to another part of this bar or bed-piece, is hooked, and this bent lever is drawn backward until it engages with the trigger catch, where it is held until it is released at the option of the marksman for the purpose of throwing the target. It contains no notched rack or flange, such as is shown in the complainant’s patent, and covered by the first claim thereof; and its adjustable tension, instead of being obtained by means of the tension arm shown in the complainant’s patent is obtained by means of a screw, which operates a rod attached to the lower end of the coiled spring, so that by shortening the screw the spring is tightened from its lower end. Both these devices, it is true, regulate and adjust the tension of the coiled spring which operates the throwing arm of the trap, but the defendant’s device works on an entirely different principle from that of the complainant. The complainant’s device consists simply in carrying the lever further around, so as to tighten the coil from the top only; while the defendants’ device increases the tension by tightening the coil from the bottom of the spring. It is true, both of these devices increase the tension of the coiled spring, but they do it differently;

and this patentee was not the first to increase the tension of a coiled spring, and hence must be limited to his own special device for increasing such tension. The defendant's device for increasing the tension of its spring is substantially the same as that shown in the Hamilton patent of September, 1880, for a ball trap. This patentee saw fit to claim a combination consisting of the spring lever, the rack, and the adjustable tension arm carrying the trigger. The defendant's device contains no rack, and contains no adjustable tension arm which carries the trigger, and hence there cannot be said to be an infringement of this claim.

The Bloom patent is for a target trap, or device for throwing targets, and contains several features, but the only one in controversy in this case is that covered by the seventh claim which is:

"(7) The combination, substantially as described, with the pivoted throwing lever, and with the coiled actuating spring, by which it is given its sweep, of the support or core around which said spring is coiled, flanged circumferentially at its upper edge to confine the adjacent coil of the spring when the lever is set."

Reduced to plain, unartificial language, this claim is for a flange upon the top of the pillar or support around which the coiled spring which actuates the throwing arm of the target is coiled, this flange serving to keep the coil in place, and prevent the spring from slipping over or off the top of the core or pillar. The defendant's spring is also coiled around a core or pillar, and a cap is screwed upon the top of this pillar, covering the spring circumferentially, which cap undoubtedly performs the same function as the flange in the Bloom patent. The device of extending or enlarging the top of the pillar or shaft around which a rope or spring is to be coiled for the purpose of keeping the spring in its place is certainly old. We see it in the ordinary ship capstan, and in the spools upon which thread is wound, and in nearly every machine where a spring or rope is coiled around a core or inner support; and if this claim of the patent Can be supported at all, it must be for the idea of making the flange integral with a part of the core or column. The defendant simply fastens a cap upon the top of their pillar, so that it covers the entire top of the pillar and spring; and while I am not disposed to say that the device covered by this seventh claim may not possibly be sustained as a specific device, it certainly is not infringed by the defendant's cap.

The Teipel patent shows also a trap for throwing targets, and consists of a vertical standard, to which is attached a broad, horizontal bed-piece, in such manner as to be capable of adjustment to different horizontal angles. Upon this bed-piece is fastened a long lever, or throwing arm, by means of a pivot, so that the arm can be swung around horizontally, or at an angle to the horizon, upon the bed-piece. This lever or throwing arm has a short arm extending backward from the pivot by which it is fastened to the bed-piece, and at a

LIGOWSKY CLAY PIGEON CO. v. PEORIA TARGET CO. et al.

distance back of the end of this short arm is a pivot or projection upon the bed-piece, so that a strong elastic loop may be affixed between the rear end of this

short arm of the lever and the projection upon the bed-piece. By this arrangement the throwing arm, when carried around upon the bed-piece, strains the spring, so that, when the throwing arm is released, it is carried rapidly back into its normal position, thereby projecting the target in the required direction, and with the requisite force. Provision is also made in the specifications for substituting a spiral spring between the short arm of the lever and the projection upon the bed-piece, so that, when the lever or throwing arm is swung around upon its pivot, the spring will be strained longitudinally between the short arm of the throwing lever and the point where it is attached to the bed-piece, thus securing the requisite force for the throw of the target. The patentee says in his specifications: "A spring is connected to the rear end of the lever, and also to the bed-piece. A preferred form of this spring is one that is elastic, in the direction of its length." And then again: "When a spiral or other spring is substituted for a rubber one, it may be connected to the projections upon the end of the lever and the bed-piece." Infringement is charged of the first, second, fourth, fifth, sixth, tenth twelfth, and thirteenth claims of this patent, which are:

"(1) In a trap for throwing targets, the combination of the lever, C, pivot, D, substantially vertical, on which the lever turns, bed or supporting piece, B, spring, E, strained between that end of the lever, C, which is behind the pivot, D, and that portion of the bed-piece which is still farther in the rear, substantially as and for the purposes specified. (2) In a trap for throwing targets, the combination of the lever, C, pivot, D, substantially as described, for enabling the end of the lever to move in a plane substantially horizontal, bed-piece, B, holding-pivot, D, and spring, E, strained between projection, F, located on the rear portion of said lever, C, and at the rear of the pivot, D, and projection, G, located on the rear end of said bed-piece, and behind projection, F, and latch, H, located at or near the rear projection, G, for holding the lever when set in such a position that its longitudinal axis is nearly coincident with a straight line passing through said projection, substantially as and for the purposes specified." "(4) In combination, the laterally-moving lever, C, and the bed-piece or support, and pivot, D, and the projection, F, on the rear end of lever, C, and behind the pivot, D, and stationary projection, G, rigidly located on a part of the trap other than the throwing lever, and catch located at the rear of said standard, substantially as and for the purposes specified. (5) In a target trap, the combination of the bed-piece, B, having a uniform, smooth upper surface, containing at rear projection, G, and lever, C, pivoted to and at its under surface, resting and rotating on the said bed-piece, and provided with projection, F, located on the lever behind the pivot, and a spring, E, strained between said projections and latch, substantially as and for the purposes specified. (6) In combination, the laterally-moving lever, bed-piece, the vertical piece, K, connected to and supporting the bed-piece and standard, A, the piece, K, being pivoted near one end to said standard by a pivot, lying in a substantially horizontal plane,

and means for adjusting the inclination, of the piece, K, and consequently the inclination of lever, C, substantially as and for the purposes specified.” “(10) In a target trap, the combination of the bed-piece. B, having a uniform, smooth upper surface, containing at rear projection, G, and lever, C, pivoted to and at its under surface, resting and rotating on the said bed-piece, and provided with projection, F, located on the lever behind the pivot, and spring, E, strained between said projections and latch, and means for altering the vertical inclination of the longitudinal axis of said throwing lever, C, substantially



as and for the purposes specified.” “(12) In combination, the laterally-moving lever, its bed-piece, standard, A, having foot provided with set pivot, PP’, and bottom plate or foundation piece, N, on which said foot rests and turns, substantially as and for the purposes specified. (13) In combination, the laterally-moving lever, its bed-piece, standard, A, having foot provided with set pivot, PP’, and bottom plate or foundation piece, N, on which said foot rests and turns, and means for adjusting the vertical inclination of the longitudinal axis of said lever, substantially as and for the purposes specified.”

The defenses interposed are: (1) That this patent is void for want of novelty; (2) that defendant does not infringe.

Complainant contends for a broad construction of this patent and its claims, but the proof shows that traps for throwing targets had long been known in the art before the time of this invention. A large number of devices are shown in the defendant’s proof for throwing glass balls and similar projectiles for target shooting; and the complainant’s proof also shows the patented device of Ligowsky of January 10, 1882, for throwing disk targets. It is apparent that the ball traps operated somewhat differently from the trap for throwing disk targets in this: that the balls were projected into the air in a segment of a parabolic curve, with the convexity of the curve upwards; while it is desired to project the disk targets in the segment of a curve having its convex side downwards, so as to imitate as nearly as possible the line of flight of the natural bird as it rises from the cover. The throw of the ball trap was, therefore, what might be called an “over-hand throw,” while that of the disk trap is more in the nature of a “pitch;” hence the throwing arm of a trap for a disk target must move in a partially horizontal position, like the horizontal arm projecting from a vertical revolving shaft, for instance; the throwing arm, however, being capable of adjustment to different angles with the horizon, so as to control the direction of the target as it is discharged.

The Ligowsky trap, which has just been considered and passed upon in connection with this case, was organized for the special purpose of throwing the disk target, and seemed from the proof to be the first trap in the field for this particular purpose. It is evident that very little change was necessary to adapt the old ball trap to the purposes of a disk target trap. Indeed, I find in the proof a patent granted to Warne in June, 1880, which shows almost, if not the entire, substantial organization of the Teipel patent; the main difference being that in the normal condition of the Teipel device the bed-piece upon which the throwing lever moved was horizontal, while in the Warne the bed-piece upon which the throwing lever moved was vertical; but the Teipel patent shows a provision by which the bed-piece could be tipped to an angle with the horizon, so that the lever in its throw would swing at an angle, while the Warne patent showed a device by which its bed-piece would swing, so that its lever could move horizontally, or at any desired horizontal angle. The Warne patent showed a pivoted lever with a long and short

LIGOWSKY CLAY PIGEON CO. v. PEORIA TARGET CO. et al.

arm, having a spring attached to the short arm of the lever, and to a fixed point upon the bed-piece, so that, when the trap was set,

or the throwing arm brought into the throwing position, this spring was strained longitudinally between the short arm of the lever and the point where it was fixed upon the bed-piece, in the same manner as is shown in the Teipel patent; and it is obvious that if Teipel could substitute a coiled spring in place of his elastic band, Warne could do the same with his device; and if it became desirable, by reason of the use of disks in place of balls for targets, the Warne trap was so organized that the swing of the throwing lever could be made more nearly horizontal than was shown in the original patent. It would require nothing but merely mechanical skill to make such a change; and when changed so that the lever of the Warne would rotate or swing upon a vertical, instead of a horizontal or inclined, pivot, you have substantially the Teipel device. The proof also shows the patent granted to Stock in February, 1884, where the arrangement of the parts of the trap was almost identical with the arrangement of the Teipel members, except that Stock used no spring, but secured his projectile force by means of a cord and drum, the drum being attached to the throwing lever in such a way as that by pulling vigorously on the cord the requisite amount of force was secured for projecting the target; and it is obvious, by substituting a spring in place of the cord to rotate the drum on the Stock device, a machine almost, if not entirely, identical with the Teipel in its mode of operation and result would be entirely secured. It will thus be seen that there was little left to be covered by this inventor at the time he entered the field, and that the state of the art necessarily confines him to his specific devices. Warne had substantially the same method of operating the lever, and a method of changing the position with reference to the horizontal line equivalent to, if not the same, as that adopted by Teipel. Indeed, so far as any of these devices are concerned with reference to the horizontal adjustment of the throwing lever, it may be said in passing that Ligowsky shows a jointed standard by which a two-way adjustment of the supporting standard could be secured, and thereby the horizontal angle of the throwing lever changed and adjusted; while the defendant's trap, like Warne's, is capable of an adjustment from a position of the throwing arm nearly vertical to a horizontal point or below it. The defendant's trap consists of a spiral spring coiled around a projection extending upward from a bed-piece, and at the forward end of this bed-piece there is pivoted a bent lever, the short arm of which is attached to an extension from the spiral spring, while the lower end of the spiral spring is fastened to a movable arm, threaded at one end, so that by a screw operating upon this thread the tension of the spring can be regulated. As I construe the Teipel patent, he must be confined to the use of a spring which has to be strained longitudinally between the short end of the throwing arm and the point where the spring is attached to the bed-piece. It is true, as I have quoted from the Teipel specifications, that he speaks of "another spring," but he shows no spring other than the elastic band, and a spiral spring operating between the point of attachment to the

LIGOWSKY CLAY PIGEON CO. v. PEORIA TARGET CO. et al.

lever and the bed-piece; nor does he give any directions by which a coiled spring can be used to actuate the lever in any other manner

than by a longitudinal strain, and it seems to me it would require as much invention to attach a coiled spring to the Teipel trap which should actuate the throwing arm as it would to make a disk-throwing trap from the old ball trap. In other words, specific provision is made by Teipel for the use of a longitudinal contractile spring, and which may be of rubber or other elastic material, or may be a coiled wire spring, but he makes no provision for the application of any other form of spring. It is true, probably, that other forms of spring could be adapted to the Teipel arrangement of parts, so as to actuate the throwing lever, but it would require a substantial reorganization of the members of the device as shown by Teipel in his specifications and drawings; and hence I think there can be no doubt that the true construction of the Teipel device, in the light of the state of the art, and what he describes as his operative device, requires the use of a longitudinal contractile spring. It will be noticed that all the claims of the Teipel patent which the defendant is charged with infringing are combination claims, and with this construction of the Teipel patent I am unable to find in the first and second claims the spring, E, strained between the end of the lever, C, and the point at which it is fastened to the bed-piece, as required by these claims. The fourth claim of the Teipel patent is, I think, substantially anticipated by the Warne patent; but, even if I am in error upon this point, the defendant's device does not contain the "catch located at the rear of the standard," which is called for by this claim; nor does it contain a bed-piece having a uniform, smooth upper surface, which is called for by the fifth claim, it being evident that Teipel intended that the throwing lever should be guided by moving upon the smooth surface of his bed-piece; nor do I find the vertical piece, K, which is called for by the sixth claim of the Teipel patent, in the defendant's device. It is true, the defendant has a means for adjustment of the pitch or horizontal inclination of his throwing-lever, but it is not by the device shown in the Teipel patent, and called for by the combination of the sixth claim, but it is more analogous in its mode of operation to the Warne patent. In fact, I should say that Teipel had borrowed his mode of vertical adjustment from Warne. The tenth claim calls for the uniform, smooth upper surface of the bed-piece and the spring strained between the arm of the throwing lever and the projection upon the bed-piece, neither of which do I find in the defendant's device. The twelfth and thirteenth claims involve the foundation piece, N, of the Teipel patent, which I do not find is used in any form, or anything which is equivalent to it, in the defendant's device. While, therefore, of opinion, as already said, that the Teipel patent stands upon a very narrow footing, and, if sustained at all, it must be sustained for its specific devices, I prefer to put my disposition of the case upon the ground that the defendant does not infringe either of the claims as charged by the complainant. The bill is therefore dismissed for want of equity.