would not be added to by the oath. The approval of the form of the order providing that the answer was to be considered to be and was thereby amended, by making the specific necessary insertions, was a waiver of any further oath, if otherwise necessary, and made good the notice without dependence upon the force of the order as made by the court. No further amendment of the answer, as a foundation for evidence of this defense, appears to have been at all necessary. The lines, arrows, and letters in red do, in view of the evidence afterwards taken, give a wrong impression as to the movement of the water by the operation of the relief valves of those engines. This is relied upon to support the charge of falsehood. But it rested somewhat on opinion, and may have been, and probably was, an error of judgment, rather than a willful misstatement of fact, and honest, rather than wicked. Whichever it was, no ground whatever appears for any charge of fraud or wrong-doing in presenting the affidavits and drawings to the court in support of the motion for leave to amend the answer. And if some misstatements or malpractice had intervened, although to be much deprecated, the motion was proper, the answer was in effect amended, the evidence has been taken on each side for what it will prove, and the order sought to be vacated fully carried out. Under these circumstances, it could not now properly be set aside for that cause, any more than an executed judgment could be for perjury of some of the witnesses, which counsel might have known of or suspected. These charges of forgery, perjury, and fraud were so groundless, and are made in this motion in such a scandalous manner, that the motion, which is otherwise drawn with unreasonable prolixity to greatly needless length, ought not to remain upon the files of the court, but should be suppressed. Let an order be entered denying all these motions, and overruling all objections to evidence therein involved, and suppressing the motion to set aside the order granting leave to amend the answer, and leaving the cause upon the calendar to stand for hearing in due course, upon the issues raised and remaining therein.

LAMSON CASH RY. Co. v. KEPLINGER.

(Circuit Court, N. D. Ohio, E. D. June 9, 1890.)

1. PATENTS FOR INVENTION—NOVELTY.

Claims 1 and 2 of patent number 803,006, issued August 5, 1884, to Harris H. Hayden, for improvements in store-service apparatus, are not void for want of novelty, and invention.

The Hayden patent describes a mechanical send-off to impart an initial impetus to the carrier as follows: "A represents a wire-way; B, one of the terminal supports; I, a perforated slide, constructed to move freely on the way, and having a terminal finger, p; a is a grooved pulley, supported by an arm, E, extending from the support, B; b, a guide pulley on the support, B; and c, a cord passing from the slide over the pulleys, and extending to a point within reach of the operator."

When a carrier is in contact with the finger of the slide, a sudden pull of the cord will propel the slide quickly on the way, and impart the required impulse to the

carrier. The claims of the patent do not specify the fluger of the slide as a part of the combination. Patent No. 359,875, granted March 22, 1887, to David Lippy, describes a mechanical send-off substantially the same as that of the Hayden patent, except that, in place of the finger attached to slide in the Hayden patent, the Lippy has the frame of the carrier extended under the wire-way so as to come in direct contact with the send-off, and receive the impulse from it. Held, that the finger of the slide is not an essential element of the Hayden combination, and that the Lippy send-off infringes the Hayden patent.

In Equity.

Philipp, Phelps & Hovey, F. L. Baldwin, and Edwin C. Gilman, for complainant.

E. B. Stocking, Chas. R. Miller, and Henry C. Hedges, for respondent.

Jackson, J. The complainant, as assignee and owner of letters patent No. 203,006, for certain new and useful improvements in storeservice apparatus, issued August 5, 1884, to Harris H. Hayden, seeks by its bill to restrain the defendant from the alleged infringement thereof, and for an account. The defenses principally relied on are lack of novelty in said patent, and non-infringement. While said letters patent describe and claim several improvements, the only one involved in the present suit is that relating to the propulsion of the carrier, in respect to which the specification says:

"In some classes of store-service apparatus it is desirable to impart an initial impetus to the carrier, whereby it is caused to travel by momentum upon the ways. Heretofore such impetus has generally been imparted directly by the hand of the operator, necessitating the hanging of the ways low down, or placing the operator in an elevated position, while the force which can be applied to the carrier in this way is seldom sufficient to propel the carrier for any great distance. To avoid the necessity of lowering the way, or placing the operator in an elevated position, and at the same time effectually apply such force as will suffice to propel the carrier for the longest required distance, I employ a mechanical send-off under the control of the operator. This send-off is constructed so as to be moved or controlled by the operator to impart a forcible and sudden movement to the carrier upon the way, and such send-offs are placed at the opposite ends of the way, or at one end only."

The specifications then describe two propelling devices. The one first referred to is not in controversy, and need not be noticed. The other form of propelling device, which it is claimed defendant wrongfully used, is described as follows:

"A construction which is most effective is illustrated in Figs. 1 and 2, in which A represents a wire-way; B_i one of the terminal supports; I, a perforated slide, constructed to move freely on the way or other like support, and having a terminal finger, p_i , a is a grooved pulley, supported by an arm, E_i , extending from the support, B_i , b_i , a guide pulley on the support, B_i ; and c_i , a cord passing from the slide over the pulleys, and extending to a point within reach of the operator, where it may be provided with a handle or connected to a treadle,"

The operation of the apparatus is thus described in the specification: "When a carrier, T, is in contact with the finger, p, of the slide, and the latter is in the position shown in dotted lines, (Fig. 2) a sudden downward movement of the cord, c, imparted by the operator, will propel the slide, I, quickly upon the way, and impart the required impulse to the carrier. A

second cord, c', Fig. 2, passing over a pulley, l', may be used to retract the slide. It will be found, however, that in most instances the momentum of the incoming carriers will carry the propelling devices to the backward positions."

The results secured or attained by this propelling device are thus described:

"By the use of a send-off or propelling device as described, the carriers are not only operated upon elevated ways by attendants upon the floor of the store, but it is possible to impart such a powerful impulse to the carriers that they may be sent long distances upon level ways or up inclined ways, thereby dispensing with continuously operating conveyers, heretofore considered necessary, while the speed is increased in proportion to the force of the impulse."

The first and second claims of the patent are as follows:

"(1) In a store-service apparatus, the combination, with a way or ways, of one or more carriers, propelling devices constructed to push the carriers, and appliances, substantially as described, extending from the propelling devices to the operator's desk, whereby said propelling devices may be moved by the operator to impart initial movement to the carriers, substantially as set forth.

(2) The combination, in a store-service apparatus, of a way supporting one or more carriers, a movable propeller to push the carriers on the way to impart initial movements thereto, and appliances, substantially as described, whereby the said propeller may be directly operated by the attendant from the counter below the way, substantially as set forth."

While these two claims are differently expressed, they cover or embody substantially the same combination, devices or devices in storeservice apparatus, and need not therefore be considered separately. The combination thus described, and embodying the patented improvement and invention, consists of the following elements, viz.: First, a wireway on which the carrier is to travel; second, a carrier with wheels so constructed and arranged as to run readily from one end of the way to the other; third, a movable propeller or propelling device for pushing the carriers in such way and for such distance as will impart to it momentum sufficient to carry it the entire length of the way, the proposed form of such movable propeller being that of a perforated slide or block supported upon, and moving backward and forward over, the wire-way; fourth, mechanical appliances consisting of a cord passing from the propelling slide over pulleys, and down to the salesman, so that the operator, by giving the cord a sudden, forcible pull or movement, moves the propelling device, which pushes the carrier, and imparts to it such momentum as to cause it to travel over the wire-way to destination. defendant has set up in his answer, and introduced in evidence, a number of patents, foreign and domestic, which it is claimed anticipated the Hayden patent. The patents relied on as showing devices which anticipated the one sued on are too numerous to be separately noticed and The defendant's expert, Massen, is examined as to 13 of said patents, which were considered the strongest in defendant's favor. It is not claimed or stated by said expert that any one of the said patents sets forth or shows the combination of devices which form the subject of the first and second claims of the Hayden patent. Said expert, how-

ever, expresses the opinion that, in the light of said earlier patents, no invention was required to make the combination of devices found in said Hayden patent; that, in view of the state of the art as shown in the several patents submitted for his examination by the defense, nothing more was required than ordinary mechanical skill to accomplish the combination embodied in the patent sued on. On the other hand, complainant's expert, Foster, testifies that no one of said patents introduced in evidence, nor all of them taken together, sets forth or suggests the combination patented by Hayden, and that Hayden's patent does involve invention. After a careful examination of the various patents relied on by defendant as anticipating the Hayden improvement in store-service apparatus, or as showing that his combination requires nothing more than mechanical skill to effect, the court is clearly of the opinion that the defense of want of novelty in said Hayden patent is not sustained; that the combination set forth in the first and second claims of said patent did involve invention, and constitutes a valid patent. All the structures or devices set up by defendant fall far short of either anticipating or of suggesting the Hayden combination; and in none of them were there any propelling devices such as is shown in the Hayden patent to push the carriers on their way for a certain distance, and impart to them such momentum as to carry them to their destination, whether the distance was long or short, and whether the way or track was level or inclined, and so constructed as to be directly operated by a single movement or pull upon a cord by the attendant. The court is, therefore, clearly of the opinion that claims 1 and 2 of the patent sued on are not lacking in novelty, and that the combination therein described constitutes a valid patent. The proceedings in the patent-office, as shown by the file-wrapper and contents, in no way limit or restrict the combination on which Hayden was finally granted his letters patent. An examination of these proceedings will show that Hayden's claims were originally so broad as to cover any propelling device. They were properly disallowed, from time to time, until he was brought down to the combination contained in his particular structure, and for which the patent was issued. His is in no sense an original or underlying invention, entitled to a broad construction, but merely a combination patent, whose claims should be fairly and reasonably construed in the light of the specification and description given by him of his invention or improvements. that is claimed for it, and thus far the law protects his patent. authorities on the question are too well settled and understood to take time in citing and commenting on them.

It is next claimed for defendant that the patent sued on should be so construed as to read into said combination an additional element, consisting of the finger, p, on the propelling slide, which strikes or comes in contact with the carrier frame below the wheels; that without said finger extending forward in advance of the frame or body of the slide or propelling device the latter would not, according to the specifications and drawings, come into contact with the carrier so as to impart to it any impulse or movement whatever. This claim is made and rests upon the

theory advanced by defendant's expert, Massen, that the small pulley, a, over which passes the cord, c, by which the operator moves the slide, I, is directly over the wire, A, along which the carrier travels, and operates to stop the carrier at the point where said pulley, a, is located; that, such being the effect of the position of the pulley, a, the only way by which the propelling slide, I, can operate to give an initial impetus to the carrier is through the projecting finger, p, with which the slide is provided, and should be constructed to extend beyond said pulley so as to reach and come into contact with the hanger of the carrier in order to give the latter any impulse or forward movement. It is conceded by defendant's said expert that the specification and drawings may admit of a different meaning; that they may mean that said pulley, a, is located on the side of the wire. A, so as to permit the carrier, in its backward movement, to pass beyond said pulley, and reach the propelling slide, I, when the latter is in the position indicated by the dotted lines in Fig. 2 of the drawings. Complainant's expert. Foster, strongly maintains and supports the latter meaning as the true and correct construction to be placed upon the specification and drawings. It is not deemed necessary to review in detail the opinions of these experts. In the opinion of the court, the expert Foster has placed the correct construction upon the patent in respect to the location and operation of the little pullev. a. If the question was even more doubtful than it is, still the court should resolve such doubt in favor of the complainant, under the principle that a patent will not receive a construction which would render it invalid when it is susceptible of a different one consistent with its valid-Goodyear v. Davis, 12 O. G. 1; Corn Planter Patent, 23 Wall. 181. While said finger, p, is mentioned in the specification, it is not described or referred to as an essential part of the apparatus, and is not made a part of either the first or second claim. The patentee having omitted it as an element of the combination covered by said claims, and it not being essential to the successful operation of the improvements claimed in store-service apparatus, it should not be read into said claims for the purpose of limiting or narrowing the patent by making the combination include an additional element to those mentioned in said claims.

The store-service apparatus used by defendant is constructed in substantial accordance with a patent No. 359,875, granted March 22, 1887, to David Lippy. The specification of this Lippy patent thus describes the operation thereof:

"It will now be seen that, taking the car in the position shown in Fig. 1, —ready for starting,—a sudden jerk upon the handle, L', will draw upon the cord, L, and starter, K, which in turn forces the car from its position with an impetus sufficient to cause it to travel to the opposite station. Although the motion imparted is sudden, still, by reason of the cord, L, passing over the pulley, I³, the starter will travel nearly the entire length of the arm, thus imparting a pushing, steady motion, the impetus being sufficient to carry the car to the opposite station. * * It is also apparent, by referring to Fig. 5, that the impetus of the carriage will be sufficient to carry the starter, K, of the receiving station, back to its proper position; so that all that is neces-

sary to be done is to give the handle, L', a pull, and the carriage, with its cash or other article, will be quickly and noiselessly transferred over the cable, B, to the opposite station."

From this description of the apparatus used by defendant, and from the model thereof introduced in evidence, its construction and operation is practically identical with that of the Hayden patent. The combination embodied in defendant's store-service apparatus contains substantially the same elements, performing the same functions, and producing the same results as in the Hayden patent. It consists of a track or cable, B, similar in all respects to the wire-way, A, of the Hayden patent; of a carrier, called a "car" or "carriage," movable on and along said track or way, between stations, the same as complainant's carrier; of a propelling device, designated as a "movable block" or "starter," K, perforated longitudinally, so as to work upon said track or way, which passes through it, corresponding literally with the propelling slide, I, of the Hayden patent; and, lastly, of a rope, cord, or chain, L, connected to the front portion of the "starter," K, and passing forward along the top of the arm, D, over the pulley, I³, and rearward under said arm, and over the pulley or roller, I, and extending down a convenient distance, where it is provided with an operating handle, corresponding substantially, except in the location or position of the pulleys, with the appliances contained in the apparatus for starting the "slide" or propelling device of the Hayden. In the Hayden patent the forward grooved pulley is supported by an arm extending from the support, B, while in the defendant's apparatus the pulley, Is, is supported by the wedge-shaped arm, D, extending from a like support. In each, the propelling "slide" or "starter" is limited in its forward movement by this forward pulley, over which the cord passes. In each the carrier or carriage is pushed forward by the propelling "slide" or "starter" to the point where the front pulley is located, thereby imparting to it such impetus or momentum as to carry it to the opposite station. In each, the propelling device is supported in substantially the same manner, and is started or set in motion by the same means, viz., by the operator pulling upon the cord connected with "slide" or "starter," and passing over the two pullevs. The arrangement in defendant's apparatus by which the cord is made to extend under the carrier or carriage, and over and under the wedge-shaped arm, so that a pull upon such cord will start the propelling slide or movable block, and force it against the car, thus imparting the requisite impulse to the latter, presents no substantial difference to that employed in complainant's apparatus. The pulleys and cord in the Hayden patent are differently located, but such difference of location constitutes no substantial or material difference between the two de-In both, the apparatus is operated in substantially the same way, performs the same functions, and produces the same result.

It is said that the apparatus used by the defendant has no projecting finger on the movable block or "starter," like the finger, p, of the complainant's slide. While this may be literally true, it has already been

shown that said finger, p, is not an element of complainant's combination. But, aside from this, it clearly appears that the frame below the wheels of the carrier employed by defendant projects endwise beyond the wheel to such an extent that the propelling slide or starter will come in contact with this extended frame of the carrier without striking the wheel thereof; and that the effect of this projecting frame in receiving the concussion from the "slide" or "starter," and protecting the wheel of the car, is precisely the same as that of the finger, p, upon complainant's "slide." In other words, defendant prevents the contact of the propelling slide or movable block with the wheels of the carrier by extending the frame or hanger of the latter beyond the wheel, while the Hayden patent effects the same object and result by extending the lower side or frame of the slide so as to reach and come in contact with the frame of the carrier before the slide reaches the wheel of the car or carriage. The purpose of the arrangement in each case is precisely the same, viz., to protect the wheel of the carrier, and avoid retarding its initial movement. It is certainly not material whether the projecting part of the frame, called the "Finger, p," in the Hayden patent, is placed on the slide or on the carrier. In each case, such projection, whether on the slide or on the carrier, is intended to serve, and does serve, precisely the same purpose, neither involves invention, and neither constitute an element of either apparatus. The court is accordingly of the opinion that the store-service apparatus used by the defendant infringes the first and second claims of the Hayden patent in suit.

The conclusion of the court upon the whole case is that there should be a decree for the complainant sustaining the validity of its patent as to the combination contained in the first and second claims thereof, and adjudging that the defendant infringes said claims in and by the storeservice apparatus now used and employed by him; that defendant be enjoined from using such infringing apparatus; and that he account to complainant for such damage as it may have sustained because of such infringement, to ascertain which the usual reference to a master, to be

selected, may be had.

American Road-Machine Co. v. Pennock & Sharp Co.1

(Circuit Court, E. D. Pennsylvania. November 11, 1890.)

PATENTS FOR INVENTIONS—VALIDITY—COMBINATION—INVENTION.

The novelty claimed in plaintiff's patent was the combination with a common form of road-making machine of momentum wheels, adapted to act as a balance against the weight of the blade-lifting device. Smaller and lighter wheels had been used in a similar combination in road-making machines, and wheels operating by their inertia to store up power from the easier part of the operation to be expended during the more difficult were old, and had been used in fly-wheels, capstan-wheels, street-car brake-wheels, and old-fashioned spinning-wheels. *Held*, the adoption of the relative weight of the wheels used in road-scraping machines and the weight of the scraper and attachments so that the momentum of the wheels the weight of the scraper and attachments, so that the momentum of the wheels would be of essential value in the adjustment of the scraper, does not involve invention. Following Hollister v. Manufacturing Co., 118 U. S. 59, 5 Sup. Ct. Rep. 717; Duster Co. v. Levy, 43 Fed. Rep. 381.

The suit is for infringement of claims 4, 10, 11, and 13 of letters patent No. 331.920 issued to G. W. Taft for road-making machines. claims read as follows:

(4) The combination with a diagonal scraper supported in connection with a wheeled carriage and adapted for upward and downward adjustment independently at either of its ends of an operating wheel (or wheels) for effecting such adjustment, adapted to act as a momentum or fly wheel as set forth, whereby the peripheral weight of said wheel is utilized to assist in the adjustment of the blade substantially as hereinbefore explained.

(10) In a road machine, the combination of a scraper-blade adapted for upward and downward adjustment at its respective ends, an operating handwheel (or wheels) connected therewith for effecting such adjustment and a brake (or brakes) acting against said wheel to arrest movement thereof, and

retain the parts substantially as set forth.

(11) In a wheeled road-scraper, the combination of a scraper-blade adapted for upward and downward adjustment at its respective ends by a strap or chain (one or more) one end whereof connects with the lift-bar or lever, while the other end is arranged to wind onto the pinion or hub on the hand-wheel

or onto a sheave geared to the hand-wheel hub.

(13) In a road machine, the combination with an oblique scraper suspended beneath a carriage or body mounted on front and rear wheels, of means for imparting independent upward and downward adjustment at the respective ends of said scraper provided with hand-wheel and pinion devices for imparting movement thereto, and stops or brake devices acting in connection with said hand-wheels for retaining the parts at positions of adjustment substantially as described.

The defense assails the patent, and denies infringement. Joshua Pusey, for complainant. West & Bond and M. B. Philipp, for respondent.

Butler, J., (after stating the facts as above.) The combinations described contain nothing new unless it is the use of "momentum handwheels." Ordinary hand-wheels in similar combinations, for analogous

purposes, are old. This is abundantly shown by the record. I need

¹Reported by Mark Wilks Collet, Esq., of the Philadelphia bar.