

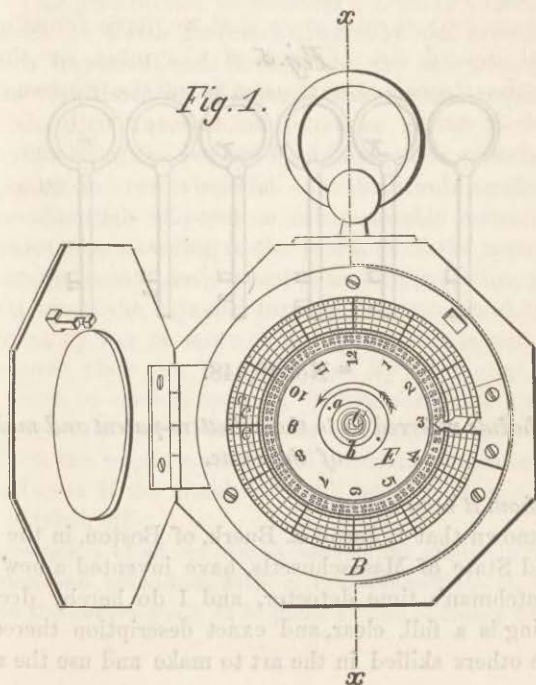
IMHAEUSER v. BUERK.

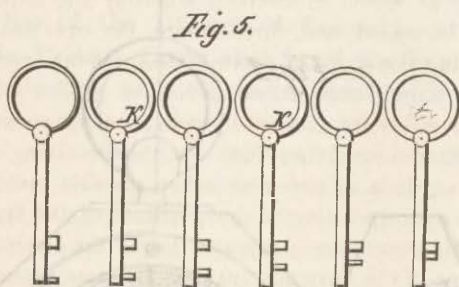
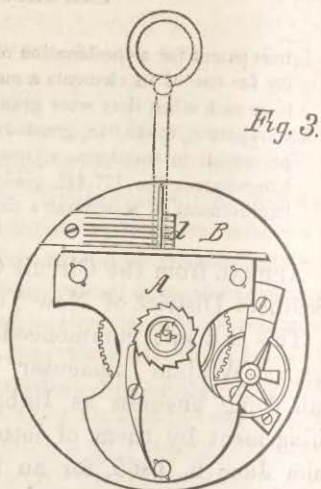
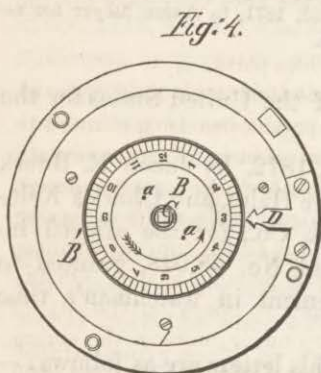
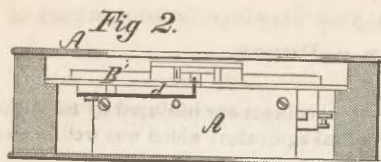
1. Letters-patent for a combination of old ingredients are infringed by substituting for one of its elements a mechanical equivalent which was well known to be such when they were granted.
2. Letters-patent No. 48,048, granted June 6, 1865, to Jacob E. Buerk for an improvement in watchman's time detectors, are valid, and are infringed by letters-patent No. 117,442, granted July 25, 1871, to Anton Meyer for an improvement in watchman's time checks.

APPEAL from the Circuit Court of the United States for the Southern District of New York.

This is a suit, commenced July 5, 1872, by Jacob E. Buerk against William Imhaeuser, Theodore Hahn, and Charles Keinath doing business as Imhaeuser & Co., for the alleged infringement by them of letters-patent No. 48,048, granted to him June 6, 1865, for an improvement in watchman's time detectors.

The drawings and specification of his letters are as follows:—





" No. 48,048.

"The Schedule referred to in these Letters-patent and making part of the same.

" To all whom it may concern :

" Be it known that I, Jacob E. Buerk, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and improved watchman's time detector, and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, ref-

erence being had to the accompanying drawings forming a part of this specification, in which, —

"Figure 1 represents a face view of this invention.

"Figure 2 is a vertical central section of the same, the line xx , Figure 1, indicating the plane of section.

"Figure 3 is an inverted plan of the movement.

"Figure 4 is a face view of the same.

"Figure 5 is a diagram representing the keys necessary for the operation of this invention.

"Similar letters of reference indicate like parts.

"This invention relates to an improvement in that class of watchman's time detectors on which a patent has been granted to John Buerk, Jan. 1, 1861. In that case a strip of paper is used stretched on the circumference of a drum to which a rotary motion is imparted by a clock or watch movement, and a series of spring points serve to perforate this strip according to the time when these points are operated by a series of keys of peculiar shape. On the strip are marked the hours, corresponding to hours on the dial of the clock or watch, and the time when one or more of the spring points have been actuated can be ascertained after the strip has been taken off. This construction necessitates a drum in addition to the ordinary clock or watch movement, whereby the expense of the mechanism is increased, and, furthermore, the operation of applying and removing the strips of paper is tiresome and requires much care.

"These difficulties are avoided by using a clock or watch with a stationary index and revolving dial. On this revolving dial are fastened removable dials of paper or other suitable material, with a series of circles corresponding to the positions of the spring points, and these spring points are concealed under the stationary index. By inserting one of the keys and turning the same round, the paper dial is pierced by one or more of the spring points, and the time when this takes place can be ascertained by examining said dial when the watch or clock is opened. The perforations in the paper dial are made from below under the stationary hand, leaving a slight barb on the upper surface, and a similar perforation cannot be produced even if the watch or clock be opened, except if the paper dial is taken off.

"*A* represents a clock or watch movement made in the ordinary manner, and provided with a revolving dial, *B*, which is mounted on the centre shaft, *C*, in place of the ordinary hands, and

which rotates under the stationary index, *D*. The dial is marked with figures from 1 to 12, and it revolves once in twelve hours. From this dial project two or more points, *a*, which serve to retain a false dial, *E*, of paper or other suitable material, and this dial is held in place by a disk, *b*, which slips over the centre shaft, and which is provided with little holes or sockets to correspond in number and position to the points *a*. The paper dial, *E*, is marked with figures from 1 to 12, like the main dial, and with a series of concentric rings, *c*, corresponding in number to the stations in the beat. The paper dial shown in the drawing is marked with six rings, to correspond to six different stations.

"The spaces between the rings, *c*, correspond in number and position to a series of spring points, *d*, the points of which are situated under the index *D*, and made to project through a slot in the dial-plate *B*'. When left to follow their own elasticity, said spring points do not reach above the surface of the dial-plate, but they are so arranged that one or more of them can be forced up simultaneously and made to penetrate the paper dial, different keys, *K*, being provided, each of which serves to raise one of said spring points, or of a combination of two or more of them.

"One of the keys is intended to be fastened by a chain or other suitable means to a post or other fixed part on each station in the beat of the watchman, and the watchman carries the watch. On arriving at a station he inserts the key, and by turning the same a perforation is produced which gives a record of the time when the watchman has visited the station. The watch, of course, is intended to be locked, so that the watchman cannot get at the paper dial in order to produce fraudulent perforations to cover a neglect of his duty, and the keys, simple as they look, are so shaped that they cannot easily be imitated, for the slightest difference in the height or position of the bit would produce a different action.

"Having thus described my invention,

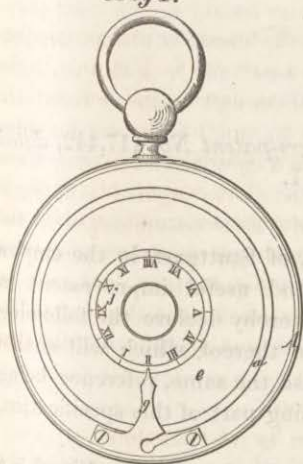
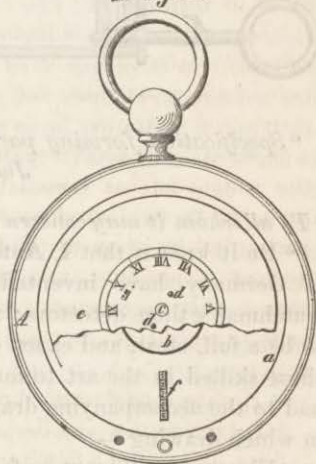
"I claim as new and desire to secure by letters-patent, —

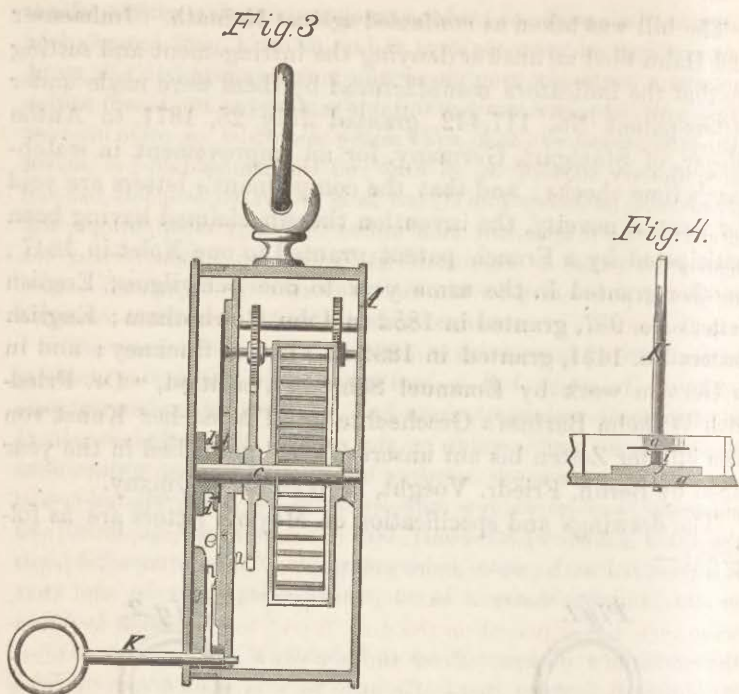
"1st, The use of a false revolving dial, *E*, in combination with the stationary index, *D*, and spring points, *d*, constructed and operating substantially and for the purpose set forth.

"2d, Producing the perforations on the paper dial, or its equivalent, from the inside out instead of from the outside in, as before."

The bill was taken as confessed against Keinath. Imhaeuser and Hahn filed an answer denying the infringement and setting up that the indicators manufactured by them were made under letters-patent No. 117,442, granted July 25, 1871, to Anton Meyer, of Stuttgart, Germany, for an improvement in watchman's time checks; and that the complainant's letters are void for want of novelty, the invention therein claimed having been anticipated by a French patent granted to one Nolet in 1847; another granted in the same year to one Schwilgue; English letters No. 957, granted in 1852 to John Rowbotham; English letters No. 1431, granted in 1862 to Thomas Buckney; and in a German work by Emanuel Schreiber, entitled, "Dr. Friedrich Wilhelm Barfuss's Geschechte der Uhrmacher Kunst von den ältester Zeiten bis auf unsere Tage," published in the year 1856 by Bernh. Friedr. Voeght, in Weimar, Germany.

The drawings and specification of Meyer's letters are as follows:—

Fig.1.*Fig.2.*



"Specification forming part of Letters-patent No. 117,442, dated July 25, 1871.

"To all whom it may concern :

"Be it known that I, Anton Meyer, of Stuttgart, in the empire of Germany, have invented a new and useful improvement in watchman's time detectors; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

"Figure 1 represents a face view of this invention. Fig. 2 is a similar view of the same, the dial-plate being partially broken away to expose the marking-dies. Fig. 3 is a transverse central section of the same. Fig. 4 is a detached section of the cam-shaped bridge.

"Similar letters indicate corresponding parts.

"This invention consists in the arrangement of one or more stationary marking-dies in the face-plate of a watch or clock in combi-

nation with a cam-shaped bridge extending over the marking-die or dies, and with one or more keys, the bit or bits of which correspond in position to the marking die or dies in such a manner that, by affixing a disk of paper or other suitable material to the movable dial-plate of the watch or clock, and causing said disk to revolve between the stationary marking die or dies and the cam-shaped bridge, the key or keys, on being introduced into the watch or clock-case and turned in the proper direction under the cam-shaped bridge, will depress the paper or other material on the marking-die corresponding to the position of its bit, and the exact time when the watchman has visited a certain room or station on his beat will be recorded on the disk of paper or other material.

"In the drawing, *A* designates the case of a watch or clock, in which is firmly secured a stationary face-plate, *a*, the central part of which is cut out to make room for a disk, *b*, which is secured to an arbor, *c*. This arbor connects by suitable gear with the clock-movement, and it revolves once in twelve hours. The surface of the disk *b* is flush with the surface of the stationary face-plate *a*, and it is provided with two or more points, *d*, so that a dial, *e*, of paper or other suitable material can be readily attached to it, and that, when such dial is placed on the disk, it will be compelled to follow the motion of the same. From the face-plate *a* project one or more stationary dies, *f*, the faces of which have engraved or otherwise produced in them figures, letters, or other suitable characters, and which, when more than one such die is used, are set in a radial direction, as shown in Fig. 2 of the drawing. These dies are situated beneath a bridge, *g*, which is firmly secured to the case *a*, and which is perforated with a hole, *h*, to receive the key *K*. The under surface of the bridge is cam-shaped, as shown in Fig. 4, and the upper surface of the key is rounded, so that, when the key is inserted into the key-hole and turned round under the bridge, the projection *i* on said key will be depressed toward the die, and the dial, *e*, which is carried through between the dies and the bridge, will receive an impression to correspond to the face of the die. The position of the projection *i* on the key, of course, must correspond to the position of the die, and if more than one die is used several keys have to be prepared, one for each die. These keys are intended to be secured in the various rooms or stations composing the beat of the watchman, the watchman carrying the clock or watch, the case of which is locked by a key in the possession of the superintendent or proprietor of the place. On reaching a certain station the watchman inserts the key in his clock, and, by turning it, a mark is produced

on the dial *e* indicating the station. On the dial is also marked a time-table, *j*, and the bridge *g* may serve as the index pointing on the divisions of the time-table. As the dial is carried around by the clock-movement, the time when a mark is produced on the dial by one of the keys can be read off from the time-table, and the movements of the watchman on his beat can be controlled. If the number of stations in the beat exceeds the number of the marking-dies in the clock, keys can be prepared with two or more projections, and with six marking dies a large number of stations can be controlled. If desired, the bridge *g* may be made yielding, so that its action on the key will depend not only on its cam-shaped face, but also on the action of a spring having a tendency to force said bridge in toward the marking die or dies.

"I am aware that a watchman's time detector has been heretofore made in which spring marking-points are used to indicate the different rooms or stations in the beat, such as described in the patent of J. E. Buerk, June 6, 1865. For these spring marking-points I have substituted stationary dies representing figures or letters, whereby the stations of a beat are readily recognized; and, furthermore, the stationary dies are easier made than the spring marking-points, they are less liable to get out of order, and the impressions produced by them cannot be forged without having exact counterfeits of the dies.

"I disclaim every thing shown and described in the patent of J. E. Buerk, above mentioned.

"What I claim as new, and desire to secure by letters-patent, is—

"The stationary marking die or dies, situated beneath a cam-shaped bridge, in combination with a suitable key or keys and with a dial passing through between the marking die or dies and the bridge, substantially as herein shown and described."

The court passed a decree in favor of the complainant, and granted him a perpetual injunction restraining the defendants from making, manufacturing, or causing to be manufactured, using, or vending to others to be used, watchman's time detectors embracing, containing, or using the invention described in and secured by the said letters-patent No. 48,048.

Imhaeuser thereupon appealed to this court.

Mr. Arthur v. Briesen for the appellant.

The complainant's patent is void. Mere duplication of devices is not patentable.

Invention, in the sense of the patent law, is the finding out, contriving, devising, or creating by an operation of the intellect something new and useful which did not exist before. *Ransom v. Mayor*, 1 Fish. Pat. Cas. 252. A contrivance which does not require the exercise of inventive power is not patentable. *The Corn-Planter Patent*, 23 Wall. 181. Enlargement of the organization of a machine does not afford any ground, in the sense of the patent law, for a patent. *Phillips v. Page*, 24 How. 164. The mere change of location of an old device is not patentable, if the result is the same as before. *Marsh v. Dodge et al.*, 6 Fish. Pat. Cas. 562. The mere transfer of a mode of constructing wooden slides and metallic slides is not invention. *Carter v. Messinger*, 11 Blatchf. 34. There is nothing new in the multiplication of parts. *Wilbur v. Beecher*, 2 id. 132.

The defendant's device does not infringe. Form, when of the essence of the invention, is necessarily material; and if it be inseparable from the successful operation of the machine, the attainment of the same object by a machine different in form is not an infringement. *Werner v. King*, 96 U. S. 218. Every man has the right to make an improvement in a machine and evade a previous patent, provided he does not invade the rights of the patentee. *Burr v. Duryee*, 1 Wall. 531; *Seymour v. Osborne*, 11 id. 516; *Johnson v. Root*, 1 Fish. Pat. Cas. 351.

Where the defendant in constructing his machine omits entirely one of the ingredients of the plaintiff's combination without substituting any other, he does not infringe; and if he substitutes another in the place of the one omitted, which is new or which performs a substantially different function, or, if old, was not known at the date of plaintiff's invention, as a proper substitute for the omitted ingredient, then he does not infringe. *Gould v. Resse*, 15 Wall. 187; *Fuller v. Yentzer*, 94 U. S. 288, 297; *Carver v. Hyde*, 16 Pet. 513; *Brooks v. Fiske*, 15 How. 212.

Mr. J. Van Santvoord, contra.

MR. JUSTICE CLIFFORD delivered the opinion of the court.

Equivalents may be claimed by a patentee of an invention consisting of a combination of old elements or ingredients, as well as of any other valid patented improvement, provided the

arrangement of the parts composing the invention is new, and will produce a new and useful result.

Such a patentee may doubtless invoke the doctrine of equivalents as against an infringer of the patent: but the term "equivalent," as applied to such an invention, is special in its signification, and somewhat different from what is meant when the term is applied to an invention consisting of a new device or an entirely new machine.

Pressure in a machine may be produced by a spring or by a weight; and where that is so, the one is a mechanical equivalent of the other. Cases arise also where a rod and an endless chain will produce the same effect in a machine; and where that is so, the constructor in operating under the patent may substitute the one for the other, and still claim the protection which the patent confers. Exactly the same function in certain cases may be accomplished by a lever or by a screw; and where that is so, the substitution of the one for the other cannot be regarded as invention.

Patentees of an invention consisting merely of a combination of old ingredients are entitled to equivalents, by which is meant that the patent in respect to each of the respective ingredients comprising the invention covers every other ingredient which, in the same arrangement of the parts, will perform the same function, if it was well known as a proper substitute for the one described in the specification at the date of the patent. Hence it follows that a party who merely substitutes another old ingredient for one of the ingredients of the patented combination is an infringer if the substitute performs the same function as the ingredient for which it is so substituted, and it appears that it was well known at the date of the patent that it was adaptable to that use. *Gill v. Wells*, 22 Wall. 1, 28.

Due process was issued against the present respondent and two others, to wit, Theodore Hahn and Charles Keinath, all of whom were duly served, but the respondent last named never filed an answer, and submitted to a decree *pro confesso*. Both of the other respondents appeared and jointly answered, setting up two principal defences: 1. That the complainant was not the original and first inventor of the improvement. 2. They deny in their answer that they have in any manner infringed

the patent of the complainant, or ever invaded any of his rights, as alleged in the bill of complaint.

Proofs were taken, the parties heard, and the Circuit Court having overruled both defences, sent the cause to a master to ascertain what amount the complainant was entitled to recover. Hearing was had before the master, and he made a report, as required by the decretal order. Exceptions were filed by the respondents, who were again heard before the Circuit Court in support of their motion to set aside the master's report. Modifications of an important character were made by the Circuit Court in the report of the master, both in respect to the amount adjudged to the complainant and in respect to the portions to be paid by the respective respondents, the decree being that the complainant do recover of the three respondents the sum of \$1,961; and also against the first two in the sum of \$3,748.28, with interest and costs, as therein specified.

Seasonable appeal was taken by the first-named respondent, and since the appeal was entered here he has filed the following assignment of errors: 1. That the Circuit Court erred in holding that the patent of the complainant is good and valid. 2. That the Circuit Court erred in holding that the respondents have infringed the claims of the complainant's patent.

Patented time detectors for watchmen were known in the art prior to the date of the patent described in the bill of complaint, and it appears that the complainant, at a certain period anterior to that date, became the owner of such a patent, and that he surrendered the same, and that it was reissued in his name for the then unexpired portion of the term. Certain alterations were made in the specification of the reissue, and, as there described, the invention provided a watch for the watchman, which he carried with him in his rounds, so constructed that, by the insertion of a key kept at each of the stations he was required to visit, he could make a record within the watch indicating the several stations visited, with the precise time of each visit, and the order in which the respective visits were made. Each watch was provided with a lock, so that the watchman had no access to its interior, and as the record of each station could only be made by the peculiar key that belonged to such station, which was there made fast, the

watchman could not deceive his employers by making a false record.

All these several functions were effected by using a watch or small portable clock movement enclosed in a strong case, the lid of which could be locked and the key kept by the employer. Like a watch it had an arbor upon which the hour-hand was placed, and a drum was attached so as to revolve as the hour-hand revolved, the purpose of which was to carry the roll of paper to receive the marks indicating the time of each visit. By marks on the paper it was divided into spaces corresponding in their position, relatively as respects the centre of the watch, to the hours and minutes of the watch dial, and by lines drawn lengthwise it was also divided into spaces corresponding in number to the number of markers to be used in effecting the patented result.

Exterior to the watch-movement, but within the case, there were placed small steel bars or springs, terminating each in a point bent at right angles, while the other end was fixed firmly to the circular plate or frame of the watch-movement. These springs were placed and held in a gang, one above another, so that the points were in a row perpendicular to the watch face, at and exterior to the point on the dial of the watch indicating the hour of twelve, and each point was directly opposite one of the longitudinal spaces in the strip of paper around the circumference of the drum.

What the inventor desired to accomplish was to show the exact time of each visit of the watchman, and it is obvious that if the point of one of the springs is pressed inward upon the revolving drum it will perforate the paper within its proper longitudinal division, and that the perforation will show the hour and minute at which it was made; and in order to permit such perforation without injuring the steel point the periphery of the drum was channelled by narrow longitudinal grooves beneath each of the spaces in the paper placed around the drum to receive the marks. Keys were also provided varying from each other in the location and width of the bit and in the number of the bits, so that when one was inserted in the key-hole contiguous to the steel spring, and turned, it would press one of the springs inward upon the paper and make the required

perforation, while another would press two springs and make two perforations, another three, and so on, as more fully set forth in the specification. *Buerk v. Valentine*, 9 Blatchf. 479.

Since the term of that patent expired, the complainant has obtained a patent for the invention in controversy in this case, which, as he admits, is for the same purpose as the other, but which he insists is a valuable improvement in accomplishing the purpose for which both inventions were made. In its main features the new improvement consists in dispensing with the drum entirely and the paper wound around its circumference. Instead of that it attaches a circular disk to the arbor of the hour-hand to revolve therewith, and attaches thereto a circular flat paper dial of larger diameter divided by vertical lines, corresponding with the hours and minutes of a watch dial, and having a portion of its exterior divided into spaces by circular lines drawn at uniform distances, and corresponding to the location of certain steel points as the paper disk is revolved. Beneath the circular plate forming the support or frame of the watch-movement the gang of steel bars or springs is firmly attached to the plate in such position that the points are in a straight line radial to the centre, and over each point is a hole in the plate so that each can be pushed upward, the point thereof passing through the hole sufficiently to perforate the paper dial in the space corresponding to the point of the spring. Over the row of holes is placed a small strip of metal, called a fixed index, which is fastened to the circular plate or frame of the watch, and extends towards the centre of the disk, and is raised sufficiently above the revolving disk to permit the paper dial to revolve freely under it and over the holes through which the spring-points are to rise, and to prevent injury to these points holes are made in its under surface opposite each point, into which the points as they rise may enter, and then by the power of the spring be withdrawn to their respective positions below the plate. Devices, called keys, of a like character to those used in the prior invention, are provided, to be inserted in a key-hole so located that the bit of the keys when turned will force the springs upwards instead of inwards, as in the other apparatus previously explained. Perforations are made by the combination in the exterior portion of the revolving

paper dial, which indicate the precise hour and minute when it was made, and the particular key that was employed, with all the variations accomplished by the devices described in the specification of the prior patent.

Attempt is made in argument to support the first assignment of error chiefly by reference to three exhibits introduced in evidence by the respondents, which were known and used by the public prior to the date of the patent described in the bill of complaint. They are the patent of Schwilgue, the patent of Rowbotham, and the patent of Nolet.

Before entering upon a separate examination of these several patents, it is proper to remark that it is not pretended that any one of them embodies the entire invention secured to the complainant in his letters-patent. Nothing of the kind is pretended, but it is insisted that each contains some feature, device, or partial mode of operation corresponding in that particular to the corresponding feature, device, or partial mode of operation exhibited in the complainant's patent.

Suppose that is so, still it is clear that such a concession cannot benefit the respondent, it being conceded that neither of the exhibits given in evidence embodies the complainant's invention or the substance of the apparatus described and claimed in his specification. Where the thing patented is an entirety, consisting of a single device or combination of old elements incapable of division or separate use, the respondent cannot escape the charge of infringement by alleging or proving that a part of the entire invention is found in one prior patent, printed publication, or machine, and another part in another prior exhibit, and still another part in a third exhibit, and from the three or any greater number of such exhibits draw the conclusion that the patentee is not the original and first inventor of the patented improvement. *Bates v. Coe*, 98 U. S. 31, 48.

Authority is given to a defendant in an action at law or to a respondent in an equity suit to plead or set up in the answer that the patentee is not the original or first inventor of the improvement; but if the plaintiff or complainant introduces his patent in evidence, the burden is cast upon the defending party to prove his defence, which he may do by showing that the

thing patented had been invented or discovered by some other person in this country prior to the alleged invention in the pending suit, or that it had been patented or described in some printed publication in this or any foreign country. Rev. Stat., sect. 4920.

Apply that rule to the facts of the case, and it is clear to a demonstration that neither of the exhibits given in evidence by the respondents constitutes any defence to the charge contained in the bill of complaint. Curtis, Patents (4th ed.), sect. 98.

Similarities may doubtless be shown between certain features of the apparatus invented by Schwilgue and the apparatus patented to the complainant, as contended by the respondents; but they utterly fail to point out the differences, except in one or two particulars. They differ not only in construction, but in the mode of operation, and in almost every particular which gives value to the device as a time detector for watchmen, the foreign patent being much more cumbrous and inconvenient than that of the complainant. Stationary detectors were employed at an early period to secure fidelity in watchmen in making the rounds of their beat in factories or other business establishments. Detectors of the kind were soon followed by portable watch-movements which were carried by the watchman, on which he stamped with ink or other coloring matter the proof of his visit to the several rooms within his beat. Enough appears to show that the patent of Rowbotham was nothing more than an improved apparatus of that class, being evidently so unlike that of the complainant as not to deserve much examination.

Nor is it necessary to enter much into detail in disposing of the other exhibit introduced by the respondents, as it evidently belongs to the same class of detectors as the preceding, and bears little or no relation to the apparatus of the complainant.

Argument to show that the present apparatus of the complainant is substantially different from that described in the expired patent cannot be required, as the comparison already given is amply sufficient to prove that difference to every one not blinded by self-interest or prejudice. Tested by these considerations, it is plain that nothing remains for re-examination but the question of infringement.

Persons seeking redress for the unlawful use of their inventions must allege and prove that they or those under whom they claim are the original and first inventors of the improvement, and that the patent for the same has been infringed by the party against whom the suit is brought. Where the patent in suit is introduced in evidence it affords a *prima facie* presumption that the invention is new and useful; but the burden to prove infringement never shifts if the charge is denied in the plea or answer. Sufficient proof of infringement may be derived from the comparison of that which is used by the defending party with the description of the invention given in the specification of the patent which constitutes the foundation of the suit, and where the invention is embodied in a machine or apparatus, that mode of conducting the examination is usually the most satisfactory. Sufficient explanations of the complainant's patent have already been given, which need not be repeated.

None, it is presumed, will deny that the time detector sold by the respondents is in appearance and general construction similar to that described in the specification of the complainant. Beyond all doubt, the respondents employ a watch-movement with a series of keys and a single hole, together with a revolving dial fastened to the watch arbor. Like the complainant they dispense with the hour and minute hands of the watch, and attach the false or paper revolving dial to the arbor of the apparatus. Their stationary index is exactly the same as that of the complainant, and they also employ a series of markers arranged radially to the centre of the dial; but the markers are unyielding, while the index is so constructed as to enable the markers to perform the same function as those employed in the complainant's apparatus. They arrange their markers under the false dial, and place the yielding index over the back of the false dial, so that the marks are made from the inside instead of from the outside.

Expert testimony was taken by the complainant, and his witness testified that the apparatus of the respondents is substantially the same in construction and mode of operation as that described in the complainant's specification, and gave his reasons for the conclusion in substance and effect as follows:

That the arrangement of the markers is in a line radiating from the centre, the markers being made stationary, so that instead of pressing against the keys while the index supports the paper, the keys, supported by the stationary index, press the paper against the markers; the faces of the markers, instead of being simple points, form what is called small figures, and the divisions of the paper dial, by concentric circles, is omitted, it appearing that the different figures are made to indicate the different stations, but the arrangement of the gang of markers is preserved. It is denied by the respondents that the index in their apparatus yields; but the witness testifies that, by taking a sight over the edge of the case parallel to the dial when the watch is open, the stationary index is seen to yield, and acts as a spring. Taken as a whole, he regards the marking device as substantially similar to that employed by the complainant.

Unless there is some yielding, either of the markers or the index, it is not easy to see how the key could be turned without tearing the paper or breaking the key, from which it must follow, as contended by the complainant, that the respondents have substituted for his series of yielding spring-points and index a series of permanent or unyielding markers and a yielding index, retaining the other necessary elements of a false dial which shall receive the impressions by the use of the described keys.

Differences between the two arrangements undoubtedly exist, as is usually the case where one is borrowed from the other without consent. Most or all of those differences are well described by the circuit judge in the case to which reference has already been made. Speaking of the infringing apparatus, he says that the gang of steel springs, instead of being placed beneath the circular plate or frame of the watch-movement, is attached to the lid of the case of the instrument, immediately over the location of the gang of springs in the complainant's detector. When closed, the line or row of points is in the same straight line radially from the centre, and in order to perforate the paper dial they must be pressed downward instead of upward. To that end the key-hole is placed in the side of the lid over the gang of springs instead of being placed in the body of the case below the springs. Instead of the fixed index placed

over the holes through which the points rise to perforate the paper, the respondents have in the same location a row of holes in the plate or frame of the movement, into which the points enter, to protect them from injury when making the perforations. During the act of perforation the paper in the complainant's apparatus is sustained by the fixed index, but the necessity for that in the infringing apparatus is obviated by making the motion of the springs downward, whereby the plate of the watch performs the same function during such act.

Other minor differences exist in the manner the paper disk is attached to the revolving disk which is fastened to the arbor of the watch-movement, but they are not deemed to be of the substance of the infringed invention. Examples are also produced as exhibits where are shown watch-dial hands on the detector of the respondents which do not appear on the apparatus of the complainant; but that is a matter not supposed to be included in the infringed patent.

Suffice it to say, without entering further into the comparison of the two specifications, that we are all of the opinion that the charge of infringement is fully sustained, both by the comparison of the specifications, one with the other, and by the proofs exhibited in the transcript.

Exceptions were taken to the master's report; but the rulings of the court in respect to the amount adjudged to the complainant for the infringement not having been assigned for error, are not the proper subject of re-examination. *Buerk v. Imhaeuser*, 14 Blatchf. 19.

Decree affirmed.