be sufficient to say that, by means of the blowing machine, a current of air is impelled through the tunnel, and that it drives against one end of the car, carrying it along, just as the wind acting upon the sail of a vessel gives it motion. The car, on reaching the lower end of the tunnel, actuates a telegraph signal, the air current is reversed, and the car is driven back. Thus back and forth, indefinitely, the car is moved by atmospheric pressure, while the constant driving of the air current through the tunnel maintains a pure atmosphere and perfect ventilation. The car carries twenty-two passengers, moves with but little noise, and there is no gas, smoke, dust, or cinders to interfere with one's comfort. Many thousands of our citizens have enjoyed the ride under Broadway in the pneumatic car, and this method of traveling is not only well known here, but is highly appreciated. The works of the Transit Company on Broadway form one of the most interesting attractions in New York. For city purposes, this system of car propulsion is admirable. The expense of its maintenance is estimated to be somewhat higher than the locomotive; but the pneumatic plan is so decidedly superior, in point of comfort and health to passengers, that the trustees had no hesitation in giving it preference. Its adoption was also recommended by the London engineers, where, as our readers will remember, there is a smaller pneumatic railway of between two and three miles in length, which has been worked successfully for several years past. Several miles of other small pneumatic tubes are also now in use in London for the transmission of telegraph messages between important points.

After the Transit Company had, at the great expense mentioned, completed their working section of road under Broadway, they applied to the State legislature for an amendment to their charter, authorizing them to carry passengers and proceed with the work. The members of the legislature visited the city, inspected the works, rode in the car and became thoroughly satisfied of the excellence of the plans. Both branches of the legislature, by very large majorities, passed the bill, and it was sent to the Governor, Hoffman, for approval. The notorious Sweeny & Co. were then in the zenith of their power, and the Governor was the pliant tool of their wishes. At their solicitation, he vetoed the bill and then promptly gave his approval to the abortion known as the Viaduct bill, of which the public disapproved, and in which Peter B. Sweeny and his immediate confederates figured as chief incorporators. Last year the legislature again passed the Beach Transit bill by increased majorities in both houses, but Governor Hoffman repeated his veto. A new governor, General John A. Dix, a man of much higher capacity, takes his seat in the gubernatorial chair on the 1st of January, and the many friends of this excellent enterprise believe that he will be glad to give it his approval.

In brief, then, the actual condition of the rapid transit business in New York is this: The only plan and route that fully meets the wants of the people that has been thoroughly examined, approved and endorsed by property owners along the route on which it passes and by the general voice of the public, is that of the Beach Pneumatic Transit Company.

At a heavy expense this Company has already begun the work, and stands ready to prosecute it with the greatest vigor as soon as the necessary authority of law is granted. No good reason exists why that authority should be withheld. It is a shame that the Company should be delayed and hindered in carrying forward this important enterprise in which so many of our leading citizens are interested, and by which the public convenience will be so greatly promoted. The Company will urge their petition before the new legislature, and, it is to be hoped, will this time succeed.

To Mail Subscribers.

The regular receipt of the SCIENTIFIC AMERICAN by mail is sufficient evidence to old subscribers that the time for which they prepaid has not expired.

To new subscribers, the regular receipt of the paper is an acknowledgment that their money has been received at the office of publication. It is a rule of the publishers to discontinue the paper when the time is up for which it is prepaid.

WORK has been commenced on a new railway tunnel through the rocks of Jersey Hights, at Weehauken, N. J., on the Hudson River, opposite New York. The tunnel is to be fifty feet wide, about a mile in length, and will have four railway tracks.

A CORRESPONDENT, writing for some missing back numbers, says that the loss of any copies of the SCIENTIFIC AMERICAN is like lost time in the prime of life.

SCIENCE differs from learning in being prophetic; whereas learning is a mere matter of the memory.

PATENT OFFICE DECISIONS.

Patent Wrench.

THE COLLINS COMPANY, ASSIGNEES.—APPEAL FOR THE REISSUE OF PATENT OF JORDAN & SMITH, FOR WRENCHES, OCTOBER 19, 1865.

LEGGETT, *Commissioner:*

It is admitted that the device differs from the references cited, and the applicant maintains that the words "substantially as described" sufficiently indicate the difference and define and limit the invention intended to be secured by this claim. The real issue in this case is whether the claim presented is met by the references cited. Otherwise an appeal to the Board would not have been in order. I think that as drawn it is met. It should be limited by including the nut, or otherwise, to clearly distinguish the invention from the references, and then the words "substantially as described" may or may not be used; but, as they serve to well round a claim, I would rather favor their employment than otherwise.

The decision of the Board is affirmed.

Improvement in Cutter Bars for Mowers and Reapers.

APPEAL OF H. MEWES.

LEGGETT, *Commissioner:*

This case had several examinations by the Principal Examiner, and was by him rejected. The applicant made numerous amendments. The final amendment embraced two claims, the latter of which is entirely inconsistent with the description of the invention in the body of the specifications. This fact was recognized by the Principal Examiner, and also by the Board of Appeals. The Examiner permitted the appeal to be taken, and the Board of Appeals heard the same and permitted the appeal to be taken to the Commissioner in person without first requiring that either the claim or the specifications be so amended as to make them consistent with each other.

The Commissioner will not examine the case in its present condition upon its merits, but returns the same to the Principal Examiner to have the preliminary questions settled.

Improved Spectacles.

APPEAL OF JULIUS KING.

LEGGETT, *Commissioner:*

Applicant proposes to improve ordinary steel spectacle frames by making the bridge or nose piece of solid silver instead of steel or steel silver-plated, as they have heretofore been made. The advantage alleged is that while oxidation is prevented, as in plated bridges, the solid silver bridge can be united to the steel rims by the autogenous process of soldering, which is said to be employed at a lower temperature than a steel bridge can, and thereby the danger of burning the steel and rendering it brittle at the point of union is obviated and a better frame is produced.

The decision of the Examiner, which is affirmed by the Board, proceeds upon a denial of the allegation that a more ready and safe application of the soldering process is practicable where a silver bridge is used than where the spectacle frame is made wholly of steel, and upon the assertion that no invention is exhibited.

I am satisfied, however, that it is true a silver bridge can be united to the rims at a lower degree of temperature than a steel one, and that thereby the danger of burning the rim and rendering it brittle is obviated. If the common method of soldering by the use of an alloy were employed, as seems to have been represented to the Examiner and Board, this would not be the case. But to secure a silver bridge no solder is required, as the silver itself (which is not perfectly pure) is a solder, and it can be united to the rims by such a degree of heat as will fuse it. That there is invention exhibited—not in any single step or feature taken alone, but in what is claimed (namely, the novel combination of the parts presented)—cannot be successfully denied, in view of the improved result obtained.

The decision of the Board is therefore overruled.

Trade Mark.

APPEAL OF BYRON GRAHAM FOR THE REGISTRATION OF A TRADE MARK FOR HARVESTERS.

"Manny," as applied to harvesters is a generic and descriptive name, and is common property as such. The word "New" as a qualifier of "Manny" is held to be equivalent to *improved*, and as such is descriptive.

Such a mark (The New Manny) cannot distinguish a machine from those of other manufacturers of "Manny" machines with improvements.

THACHER, *Acting Commissioner:*

As the only essential portion of the proposed trade mark is descriptive and not distinguishing, I am of the opinion that registration should be denied.

Saw Mill Carriage.

L U PATTEE.—INTERFERENCE APPEAL.

A rehearing in a case of interference will only be granted on such a showing of merits as would entitle a mover to a new trial in a suit at law.

THACHER, *Acting Commissioner:*

I have no doubt, after an examination of authorities, that in a parallel case a new trial would be unhesitatingly refused before the courts, and it must be here.

The motion is denied.

DECISIONS OF THE COURTS.

United States Circuit Court, District of Massachusetts.

PARTON *vs.* PRANG.

Copyright.

A suit in equity brought by Arthur Parton, artist, against Louis Prang, publisher, to restrain the defendant from the publication and sale of the chromo entitled "Close of Day," a reproduction by the process of chromo-lithography of a painting designed and executed by complainant in oils. Although the complainant had sold the original painting, which ultimately had been purchased by defendant, no special conditions being annexed to the sale, it was contended in behalf of the complainant that such sale of the picture did not convey the right of reproducing or publishing the same.

The opinion of the Court was delivered by Mr. Justice Clifford, in which a very able review of the general scope of the copyright law is given, and the distinctions pointed out between a copyright on a literary production and a copyright on a painting.

Assignments of a manuscript are required to be in writing by the copyright act, but enough has been remarked to show that a picture, under that act, might be transferred by an oral contract, and it is well settled law that even copyright is an incident to the ownership of a manuscript, and that it passes at common law with the transfer of a work of art. *Turner* vs. *Robinson*, 10 Irish Ch., N. S., 142. *Power* vs. *Walker*, 3 M. and S. 9. Hence the remark of the Court in *Turner* vs. *Robinson* that it was a strange proposition that the transfer of property should destroy and extinguish that which principally constitutes the value of the thing transferred, meaning not that the right to publish did not pass by the sale, but that the exclusive right of publication which attached to the manuscript was not lost by the transfer. Such a transfer of the manuscript or picture is not a publication of the same unless it was so intended by the parties; but if the sale was an absolute and unconditional one and the article was absolutely and unconditionally delivered to the purchaser, the whole property in the manuscript or picture passes to the purchaser, including the right of publication, unless the same is protected by copyright, in which case the rule is different. (*Baker* vs. *Taylor*, 2 Blatch., 82, *Ryan* vs. *Goodwin*, 3 Sum., 518; *Wood* vs. *Zimmer*, Holt, N. P., 60, *Pennock* vs. *Dialogue*, 2 Pet., 14.)

Unfairness is not pretended in this case, and inasmuch as the sale and delivery were in their terms absolute and unconditional, and without any reservation, restriction, or qualification of any kind, the court is of the opinion that complainant is not entitled to relief.

T. W. Clark, for complainant.

S. Z. Bowman and *H. W. Chaplin*, for defendant.

Supreme Court of the United States.

Steam Engine Patent.

JAMES REES, Plaintiff in Error, *vs.* WILLIAM L. GOULD.

In error to the Circuit Court of the United States for the Western District of Pennsylvania.—December term, 1871.

Mr. Justice Clifford delivered the opinion of the Court.

Letters patent were granted to William L. Gould, on the 24th of January, 1860, for a new and useful improvement in steam engines, described in specification as "a new and useful mode of operating and handling" such machines, which consists, as the patent states, in so arranging and constructing the cranks or arms of the lifters and cam rods of puppet valve engines that they may be operated and handled with ease and speed, by means of levers and connecting rods, the whole being arranged and constructed in the manner described in the specification.

Process was issued, and being served, the defendant appeared and plead as follows: 1. That he was not guilty. 2. That the plaintiff was not the original and first inventor of the improvement described in the letters patent, and tendered an issue to the country, which was joined by the plaintiff.

The defendent requested the presiding justice to instruct the jury that when a combination of mechanical devices is claimed, the patent is not infringed by the use of a combination differing substantially in any of its parts, and that the omission of one essential feature or element of the combination as claimed avoids the infringement, repeating that request in respect to each of the three claims of the patent, and the bill of exceptions shows that the presiding justice refused to give the instruction as to any one of the three claims, and that he instructed the jury in respect to the second claim that the use of the combination is an infringement, and that the omission of one of the elements and the substitution of another mechanical device to perform the same function will not avoid the infringement, adding, what undoubtedly is correct, that the elements of the machine may be old and the invention consist in a new combination of old elements whereby a new and useful result is obtained.

Just exception cannot be taken to the last paragraph of the instruction, but the preceding clause, which asserts that the omission, of one of the elements and the substitution of another mechanical device to perform the same function, will not avoid the infringement, cannot be sustained, as the principle as there stated, without any qualification, is not correct, and when given, as the instruction was, without any explanation, it was well calculated to mislead the jury.

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 it is old but was not known at the date of the plaintiff's invention as a proper substitute for the omitted ingredient, then he does not infringe.

Tested by these principles, as the instruction in question must be, it is plainly erroneous, as it warranted the jury in finding for the plaintiff, whether the ingredient substituted for the one omitted was new or old, or whether the one substituted was or was not well known at the date of the plaintiff's patent as a proper substitute for the omitted ingredient.

Judgment reversed and a new venire ordered.

Facts for the Ladies.—Miss Ellen Corbett, Brooklyn, N. Y., has used her Wheeler & Wilson Lock-Stitch Machine since 1858, doing the entire sewing for thirteen adults; it is as easily used as a hand needle. A No. 2 needle did all the sewing for 10 years; it has paid for itself many times over, and they would not go back to hand-sewing for ten times its cost. See the new Improvements and Woods' Lock-Stitch Ripper.

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