DECISIONS RELATING TO PATENTS.

United States Circuit Court—Southern District of New York.

THE AVERILL CHEMICAL PAINT COMPANY *vs.* THE NATIONAL MIXED PAINT COMPANY *et al.*

Wheeler, J.:

This suit is founded upon reissue letters patent, No. 7,031, dated April 4, 1876, granted to Damon R. Averill, assignor, for an improvements in paints. The claim is for—

"A mixed liquid paint composed of oxide of zinc or other pigments, oil, turpentine or benzine, water, and one or more emulsating agents put up in tight vessels or cans."

The original patent was No. 66,773, dated July 16, 1867, for an improved paint compound, particularly described by ingredients and quantities, like that in the reissue, but with lime water and silicate of soda, which were emulsating agents, but not stated to be such, specified as parts of the combination and compound. The claim was for—

"A paint composed of the ingredients herein named and prepared and compounded, substantially in the manner specified."

There was no allusion in the patent to anything to contain the paint. Liquid mixed paints produced by the use of emulsating agents were known and used before Averill's discovery, and paints had been contained in cans and other tight vessels before that time, but no paint had been made by the use of his precise combinations and ingredients before.

On the application for a reissue the patentee made proof that prior to his application for the original patent he had put up his paint in cans and other tight packages, and noticed its advantages for being put up in that way, which appears to have been satisfactory to the Commissioner that this mode of packing was a part of the original invention, and upon that proof the reissue appears to have been granted. The defendants do not use the combination or compound described in the original patent.

The principal defenses are that the reissue is not supported by the original, and is therefore void; that the patentee was not the original and first inventor of the invention described in the reissue; and that if the reissue can be upheld at all the defendants do not infringe any part for which it is valid. The original patent was valid enough apparently for the particular kind of paint described in it. The reissue, if it is for that kind of paint only packed in tight vessels, may be valid, for it would merely narrow the scope of the claim upon the same invention from that kind of paint everywhere to that kind of paint only when so packed; but the reissue is not limited to that particular kind of paint. It extends to all forms made from the same ingredients, other than the emulsating agents specified, by the use of any emulsating agents. This expands the original patent not only beyond the scope of the claim upon the invention described, but beyond the scope of that invention.

A patent for a particular kind of liquid mixed paint expanded in reissue to cover all kinds of liquid mixed paints when packed in tight vessels, the invention of packing in vessels not being at all described or even alluded to in the original patent, *Held* to be invalid for new matter.

The Commissioner of Patents is not authorized to grant a reissue of a patent for an invention in addition to that shown in the original in cases where there are no drawings nor models, upon proof that the addition was really a part of the same invention sought to be patented in the original.

A reissue patent must in all cases be for the same invention as that contained in the original patent, and the last clause of section 4,916 Revised Statutes merely governs the manner of proof, but does not authorize the Commissioner to grant a reissue for a different invention, or to determine that one invention is the same as another or different one, or that two inventions essentially distinct constitute but one.

Bill dismissed.

CROSS *vs.* MACKINNON.—PATENT FOUNTAIN PEN.

Wheeler, J.:

Letters patent, No. 199,621, for an improvement in fountain pens, the principal distinctive feature of which is a spring working between the vibrating writing pin and the air tube to project the pin and restrain the flow of ink, examined and found to be valid.

A weight to project the writing pin not the equivalent of a spring for the purpose desired, the efficiency of the weight in this connection being impaired by its necessary confinement in a small working space and the necessary inclination of the pen from a perpendicular both when in use and out of use.

The patent infringed by one who has the spring inside the air tube instead of outside, whether or not it might be decided that the change is an improvement in the manner of attaching the spring to the tube.

The orator has a patent, numbered 199,621, for an improvement in fountain pens, the principal distinctive feature of which is a spring working between the vibrating writing pin and the air tube to project the pin and restrain the flow of ink when the pen is not in use, and yield to the pressure on the point of the pin and make room for the flow of ink when the pen is in use.

The defense of non-infringement rests upon the fact that the defendant has the spring inside the air tube instead of outside. This may be an improvement upon the plaintiff's mode of attaching the spring to the tube; but if it is it is none the less a use of his arrangement. They make use of the same parts for the same purpose in substantially the same way.

Let there be a decree for the plaintiff according to the prayer of the bill.

NEW *vs.* WARREN.—PATENT TANK FOR CEMENTS.

Wheeler, J.:

This suit is brought upon reissue letters patent, No. 6,683, Division A, and No. 6,684, Division B, dated October 5, 1875, founded upon original letters patent, No. 147,423, dated February 10, 1874, granted to the orator for an improvement in tanks for asphaltic cement. The defenses are want of novelty, that the reissues are too broad for the original, and non-infringement.

A combination claim is not infringed by the use of any of the elements less than all.

A patent may be reissued in divisions, but the patent cannot be broadened in that way any more than if reissued together.

A patent for a machine cannot be broadened on reissue to cover a process described in the original patent. If the process was patentable it should have been included in the original patent.

The mere operation of a machine does not constitute a patentable process. It is not a chemical process, nor any other for transforming the subject of it into another state.

Let there be a decree that Division B is invalid, that the defendant does not infringe Division A, and that the bill be dismissed, with costs.

United States Circuit Court.—District of Connecticut.

COES *vs.* THE COLLINS COMPANY.—PATENT WRENCH.

Blatchford, J.:

This suit is brought on reissue letters patent, No. 3,483, granted to Loring Coes, the plaintiff, June 1, 1869, for an improvement in wrenches, the original patent, No. 40,590, having been granted to Thomas H. Dodge, as assignee of George C. Taft, the inventor, November 10, 1863, for an improvement in wrenches.

A claim drawn up in terms to cover a result, viz.: An improved Coes wrench, so constructed that the thrust or back strain of the rosette-screw when the wrench is used shall be borne by the shank, instead of the handle, of the wrench, construed, in view of the state of the art, to be for the specific devices described in the patent, and *Held* not to be infringed by defendant's article, which attained the same result by a different means.

Bill dismissed.

Rapid Track Laying.

Laying a mile of railway track involves carrying and placing in exact position from 2,640 to 3,000 ties, bringing forward and laying down, exactly the right distance apart, 352 rails (if of 60 pounds to the yard), each 30 feet long and weighing 600 pounds, or an aggregate of nearly 94½ tons, or 211,200 pounds, and fastening the rails to each other by fish plates and bolts, and to the ties by four spikes in each tie.

The *Railway Age* describes the manner in which the work of laying two miles of track a day is done by means of the latest devices.

A train of flat cars with an engine to push it stands on the newly finished track. Upon the top of the cars a track of about eight feet gauge has been laid, the spaces from car to car being filled by short pieces of rails held by peculiar joint fastenings, so as to allow sufficient play as the cars are pushed together or pulled apart, and easy removal of the short rails when the day's work is done. On this track a small car, pushed by hand, runs, carrying ties to the front. The car is fitted with a dumping arrangement, so that as the wheels reach the end of an extension on the front car the small car tips the load of ties down upon the grade. They have hardly fallen before they are picked up by the active gang of men and laid in place, the exact space between ties being indicated by a long pole with white marks, laid at the side. As soon as each tie is laid a young man follows with a gauge and marks with red chalk the outer line for the rail.

Meantime two men are pulling a pair of rails rapidly forward upon iron rollers fixed in the top of the cars; as they reach the end the rails slide down upon movable stands or trestles, with rollers on the top, which stand on the ties to receive them, and before they reach the ground they are quickly and easily picked up by the gang and laid in place on the ties. Another pair of rails follow; bolts and spikes have meantime been placed on the ground by an attendant boy, and in a moment the fish plates, which were fastened on one end of each rail before it left the car, are bolted in place, the spikes are driven home, and at a signal the watchful engineer backs the train up another length of two rails, or sixty feet. Then another load of ties comes thundering down on the grade, and so the process goes on.

The writer timed the work and saw twelve pairs of rails, or six double lengths between each dumping of ties, laid and half spiked in 21 minutes, so that the train could move over them. The rails being thirty feet long; this speed, in a day of ten hours, would suffice to lay 10,284 feet of track, or not much less than two miles a day.

Practically, however, this rate would seldom be kept up all day, although with a larger force of men and working more hours it could apparently be considerably exceeded. The force engaged at the time referred to numbered only twenty-six, as the contractor did not wish to hurry the work for fear of overtaking the graders.

Weights and Measures.

The following system of decimal weights and measures is thought to be greatly preferable to the metric.

I. LINEAR MEASURES.

1 stroke = ½ millimeter.
1 mesh or barleycorn = 10 strokes = ½ centimeter.
1 nail or thumb = 10 meshes = ½ decimeter.
1 ell or cubit = 10 nails = ½ meter.
1 rod or fathom = 10 ells = ½ dekameter.
1 chain = 10 rods = ½ hektometer.
1 guild = 10 chains = ½ kilometer.
1 league = 10 guilds = ½ myriameter.
1 degree = 20 leagues.
1 quadrant of the earth = 100 degrees.
1 yard = 2 ells.

II. AGRARIAN MEASURES.

1 span (arm-span) = ½ centiare.
1 rood or loughter (Germ. lachter) = 100 spans = ½ are.
1 acre = 100 roods = ½ hektare.

III. MEASURES OF VOLUME.

1 cord = 2½ x 2½ x 5 ells.
1 perch = 2 cords.

IV. WEIGHTS.

1 minim (Lat. minimum) = ½ centigram.
1 grain (Lat. granum) = 10 minims = ½ decigram.
1 bead (Lat. siliqua) = 10 grains = ½ gram.
1 drachm (Lat. drachma) = 10 beads = ½ dekagram.
1 ounce (Lat. uncia) = 10 drachms = ½ hektogram.
1 pound (Lat. libra) = 10 ounces = ½ kilogram.
1 stone = 10 pounds = ½ myriagram.
1 quintal = 10 stones = ½ metric quintal.
1 wispel (Germ.) = 10 quintals = ½ metric ton
1 ton = 2 wispels = 1 metric ton.

V. MEASURES OF CAPACITY.

1 drop (Lat. stilla) = $\frac{1}{10}$ milliliter.
1 ard (Germ, Lat. fluidsiliqua) = 10 drops = ½ milliliter.
1 cruet or quain (Germ. quentchen, Lat. fluiddrachma) = 10 ards = ½ centiliter.
1 noyel (Germ. noesel, Lat. fluiduncia) = 10 cruets = ½ deciliter.
1 pint (Lat. octarius) = 10 noyels = ½ liter.
1 gallon (Lat. congius) = 10 pints = ½ dekaliter.
1 anker, firkin, bushel = 10 gallons = ½ hektoliter.
1 tun, pipe (of wine or beer), malter (Germ. of grain) = 10 ankers = ½ kiloliter.
1 load = 2 tuns = 1 kiloliter.
1 quart = 8 gills.
1 gallon = 4 quarts.
1 bushel = 4 pecks.
1 rundlet, kilderkin = 2 ankers.
1 tierce = 4 ankers.
1 hogshead = 6 ankers.
1 puncheon = 8 ankers.

As will have been noticed, the Latin terms have been added to the measures needed for apothecary purposes. The terms of the present system have been transferred as much as practicable. For the balance, partly German terms, used already for a similar purpose, have been transferred, partly words inserted whose original meaning already points to the measure. The term "guild" is analogous to "league," "mesh" to "link," "minim" belongs without doubt more properly to the weights; "bead" has probably been formed from "bean-beden," from the ancient habit of saying the beads with the help of beans, and as several varieties of beans *e. gr.* the castor-bean, come very close to the weight in question, this term and its Latin version seemed to be appropriate. The "ell" and "rood" are hardly any more used at their present size, but both would probably have the popular preference to the others proposed, while "ell" would be also used by the other Teutonic nations whenever they would calculate by this system.

The main and incalculable advantage of this system would be that the main measures and weights of the old system, *e. gr.* the cubit, rod, league, grain, pound, quintal, drop, pint, gallon, anker, kilderkin, tierce, etc., are very nearly represented in the units above-proposed, thus very little change would be necessary, the introduction without difficulty, and the main units were, just opposite to the metric, of a most handy size. This also would apply to the "guild" and "league," the former adapting itself most excellently for measuring heights, depths, etc., while a measure similar to the league, mostly by the name of "hour," has been very much used for many centuries in Europe as road measure, comes very close to the nautical league, and is undoubtedly within the range of an exclusively handy measure for that purpose. As the interchange with the metric system could be had by doubling and halving, the end of a universal notation would not be greatly impeded by the change.

It thus seems that the above proposal, allowing that some of its nomenclature will have to be amended yet, will meet with the demands.

P. RUSTEMEYER, M.D.

Hamburg, Ill., August, 1882.

Large Watermelons.

By carefully pruning and protecting his vines, and allowing but one or two melons to ripen on each vine, a Georgia farmer succeeds in getting watermelons weighing sixty pounds and more. One growing melon weighed sixty-five pounds August 23, and was expected to reach seventy or seventy-five pounds by the time it was fully ripe. These melons bring from fifty cents to a dollar each at the nearest town. The secret of his success, he claims, is in judicious pruning, an art to be learned only by experience.