

How to Improve the Appearance of Furniture.

Mr. C. J. Henkels, of Philadelphia, Pa., suggests that when the polish on new furniture becomes dull it can be renewed by the following process: Take a soft sponge, wet with clean cold water, and wash over the article. Then take a soft chamois skin and wipe it clean. Dry the skin as well as you can by wringing it in the hands, and wipe the water off the furniture, being careful to wipe only one way. Never use a dry chamois on varnished work. If the varnish is defaced and shows white marks, take linseed oil and turpentine in equal parts; shake them well in a phial and apply a very small quantity on a soft rag until the color is restored; then with a clean soft rag wipe the mixture entirely off. In deeply carved work, the dust cannot be removed with a sponge. Use a stiff haired paint brush instead of a sponge. The cause of varnished furniture becoming dull, and the reason why oil and turpentine restore its former polish, it will be appropriate to explain. The humidity of the atmosphere and the action of gas cause a bluish white coating to collect on all furniture, and show conspicuously on bright polished surfaces, such as mirrors, pianos, cabinet ware and polished metal. It is easily removed as previously directed. The white scratches on furniture are caused by bruising the gum of which varnish is made. Copal varnish is composed of gum copal, linseed oil, and turpentine or benzine. Copal is not soluble in alcohol as other gums are, but is dissolved by heat. It is the foundation of varnish, as the oil is used only to make the gum tough, and the turpentine is required only to hold the other parts in a liquid state, and it evaporates immediately after its application to furniture. The gum then becomes hard and admits of a fine polish. Thus, when the varnish is bruised, it is the gum that turns white, and the color is restored by applying the oil and turpentine. If the mixture is left on the furniture, it will amalgamate with the varnish and become tough, therefore the necessity of wiping it entirely off at once. To varnish old furniture, it should be rubbed with pulverized pumice stone and water to take off the old surface, and then varnished with varnish reduced, by adding turpentine, to the consistency of cream. Apply with a stiff haired brush. If it does not look well, repeat the rubbing with pumice stone, and when dry, varnish it again.

MOTHS IN FURNITURE.

The same author says: There are two species of moths which infest furniture. One is a large fly of silvery white color; the worm of the same is shaped like a chestnut worm, and is familiarly known. It rarely infests furniture. The other is a small fly of a dark drab color; the worm is about one fourth of an inch long, and tapering from the head to the tail. It was first observed by upholsterers about thirteen years ago. This fly penetrates a sofa or chair, generally between the back and seats of sofas, or under the seats, where the vacancy among the springs affords a safe retreat. It may make a lodgment in one week after the furniture is placed in the house. If such should be the case, in two months the worm will appear; and the continual process of procreation in a few months increases the number to thousands. This moth has no season. It destroys in winter and summer alike, and it is kept in active life by the constant heat of the house. We find at the same time, in the same piece of furniture, the fly, the worm, and the eggs; thus showing that they are breeding and destroying all the time. It does not eat pure curled hair, but fastens its cocoon to it, the elasticity of which prevents its being disturbed. The inside of furniture is used by it only for the purposes of propagation. The worm when ready for food crawls out and destroys the covering, if of woolen or plush material; and falling to the carpet, destroys it. It rarely cuts through plush from the inside, as it is of cotton back, but there are instances where the worms have cut up muslin on the outside back of sofas. There is no protection against them but continual care. New furniture should be removed from the walls at least twice a week at this season of the year, and should be well whisked all round, and particularly under the seats, to prevent the fly from lodging. This is an effectual preventive, and the only one known. Cayenne pepper, Scotch snuff, camphor, turpentine, and all other remedies for protection from the large moth are of little or no avail against the furniture moths. Saturation with alcohol will not destroy them when in a piece of furniture. If the furniture is infested, they may be removed by taking off the muslin from under the seats and off the outside ends and backs, where they congregate most, and exposing to the air as much as possible. Beat well with a whisk or the open hand, and kill all the flies and worms which show themselves. This done often will disturb them, and may make them leave the furniture, in their desire to be left in quiet. When the furniture is free from moths and is to be left during the summer months without attention, it may be protected by camphor in small bags or highly concentrated patchouli. The safest way is to have the furniture well whisked twice a week. If the moths attack the carpet, which they will first do under the sofas and chairs, spread a wet sheet on the carpet and pass a hot flat iron over it quickly; the steam will effectually destroy both worms and eggs. If furniture is delivered in a dwelling free from moths, the upholsterer's responsibility ends there and all rests with the housekeeper, as no tradesman can tell whether the moth will attack it or not. There are cases where the furniture has been in use ten or twelve years before being attacked. It would be as fair to hold the tailor responsible for the safety of clothing from moths as to hold the upholsterer responsible for the safety of furniture.

A STATUE of General Israel Putnam, by J. R. A. Ward, is being cast in Philadelphia, Pa.

DECISIONS OF THE COURTS.

United States Circuit Court—Northern District of New York.

FIRE ARM PATENT. THE BERDAN FIRE ARMS MANUFACTURING CO. VS. E. REMINGTON & SONS. WOODRUFF, Judge.

I have very grave doubts whether the so-called device described in and covered by the reissued patent upon which this suit is brought is patentable. The manner of constructing and securing the breech piece for a breech loading gun, which formed the subject of the original patent to Hiram Berdan, was, so far as appears in this case, an original invention. In procuring reissues of that patent the plaintiff, his assignees, have sought to secure to themselves a monopoly of a curved surface on the hinge of the breech piece, which was no feature of the invention in what were its distinguishing features, but which was an obvious mechanical necessity incidental to the application of Berdan's device, or to the application of any similar device, whenever the hinge pin is placed so high as to raise the surface of the hinge above the line of the barrel. Cutting away an obstruction to the introduction of the cartridge did not require invention—it was inevitable. But my conclusion in this case does not rest on the doubt so expressed. I find as a fact established by the evidence that Berdan was not the inventor of the curve in the hinge, which is the subject of the patent sued upon. His invention neither contained nor contemplated this feature in the breech piece. He did not contemplate placing the hinge pin so high as to render the curve necessary, nor did he give to the mechanics who, under his partial supervision, constructed the model of his actual invention, or the drawings from which his first gun was made, any instruction or suggestion embracing such a curve. The making of the curve in the hinge, when that gun was in fact constructed, resulted from a departure from Berdan's model by the workmen themselves, not by design, but through inadvertence. When the parts of the gun were completed and put together the workmen found that either by a departure in the working drawings (made by one of them) from the model, or by a departure in the gun from the working drawings, the hinge pin was raised so high as to interfere with the insertion of the gun barrel, and also to interfere with the insertion of the cartridge, and they, therefore, as a matter of judgment, cut it away. They did it not to obviate a difficulty necessarily incidental to the use of Berdan's invention, but a difficulty created by the workmen themselves through an inadvertent error and departure from Berdan's contemplated position of the hinge pin. In short, he contemplated raising the hinge pin as high as with the hinge in the ordinary or straight surface form, was conveniently practicable, and they made under his direction both model and drawing of his invention in that form; but when they made a gun they placed the pin so high as to create the obstruction above referred to, and they cut it away to cure the apparent defect. In this Berdan was not consulted. He was not present when its necessity was discovered, nor was it his duty to be present. Berdan did not invent it. If anything in the nature of invention pertains to it, that was done or made by the workmen without his knowledge. The bill herein must be dismissed with costs. H. M. Ruggles, for complainant. Geo. Gifford, for defendant.

United States Circuit Court—Southern District of New York.

BILLIARD TABLE DESIGN PATENT. HUGH W. COLLENDER VS. WILLIAM H. GRIFFITH.—THE SAME VS. THE SAME. These two suits were submitted together on the same proofs. The one suit is founded upon a patent for a design for a billiard table; the other upon a copyright of an engraving exhibiting a view of the same billiard table, with the hinge in the ordinary or straight surface form, was conveniently practicable, and they made under his direction both model and drawing of his invention in that form; but when they made a gun they placed the pin so high as to create the obstruction above referred to, and they cut it away to cure the apparent defect. If a patent for a design covers the ornamentation shown in it, it is no infringement to use the principal figure without the ornamentation. A person who publishes, by way of advertisement, an engraving of an article he has on sale cannot by copyrighting it prevent others who have an equal right to sell the article from using a similar engraving in advertising it. The bills of complaint dismissed with costs.

NEW BOOKS AND PUBLICATIONS.

INDUCTIVE INQUIRIES IN PHYSIOLOGY, ETHICS, AND ETHNOLOGY, relating to subjects of recent research and speculation. By A. H. Dana. Price \$1.25. New York: A. S. Barnes & Co., 111 William Street. This volume contains fifteen essays, all of which are of much literary merit and show great and varied powers and high mental culture. PRE-HISTORIC RACES OF THE UNITED STATES OF AMERICA. By J. W. Foster, LL.D., Author of "The Physical Geography of the Mississippi Valley," etc. Price \$3.50. Chicago: S. C. Griggs & Co. New York: Mason, Baker, and Pratt, 142 Grand Street. The lamented death of Dr. Foster gives a melancholy interest to this volume, which was published just before his decease. Like all his previous writings, it is clear and forcible in style, and bears in every page evidence of learning and research. It is the last contribution to a most interesting branch of study from one of the most capable of the scientific writers of this generation.

Inventions Patented in England by Americans.

(Compiled from the Commissioners of Patents' Journal.) From June 27 to July 3, 1873, inclusive. CARPET.—T. Crossley, Bridgeport, Conn. CHAMPAGNE TAP, ETC.—W. L. Grant, Boston, Mass. DISTILLING RESIN, ETC.—R. Lloyd, New Orleans, La. ENGINE BRAKE.—O. Grüniger, New York city. FIRE ARM.—W. R. Evans, Lynn, Mass. INHALER.—C. D. Hunter, Marlborough, Mass. LANTERN.—A. H. Cramp (of New York city), Willesden, England. LOOM.—L. E. Ross, Providence, R. I. MAKING MIDDINGS.—G. T. Smith, Minneapolis, Minn. NICKEL PLATING.—H. T. Brownell, Hartford, Conn. PRINTING CARPETS, ETC.—T. Crossley, Bridgeport, Conn. (Two patents.) PROPELLER, ETC.—B. T. Babbitt, New York city. REAPER, ETC.—H. Lee, Beloit, Wis. ROTARY PUMP.—L. Chapman, Collinsville, Conn. SEWING MACHINE, ETC.—J. Ross, Philadelphia, Pa. STEAM BRAKE, ETC.—J. F. Taylor, Charleston, S. C. VALVE GEAR.—J. Tesseyman et al., Dayton, Ohio. WATER COLUMN.—J. N. Poage, Cincinnati, Ohio.

Recent American and Foreign Patents.

Improvement in Attaching Metal Caps to Glass, etc. Cecil B. Jenkins, New York city.—This invention for attaching caps, lamp tops, covers, etc., to glass and porcelain articles consists of one or more metal disks, having slots from the center hole, forming elastic projections which impinge the glass or porcelain forcibly, by having the hole made in the disk slightly smaller than the object to which the cap or other article is secured, and hold better than the plaster fastenings now in use. This kind of fastening is cheaper than the plaster, and it has the advantage of allowing the taking off the cap or other article and putting it on at any time, without any more labor than is required to put on any ordinary loose metal cap. Improved Whip Socket. James H. Young, Newburgh, N. Y.—The object of this invention is to furnish for wagons of all kinds an improved whip socket, which firmly grasps the whip therein, so that the loss of whips and other annoyances arising therefrom may be prevented. Bunches of bristles extend radially from the circumference toward the center of the socket, leaving a suitable space in the center. The whip end enters easily therein and is tightly embraced by the bristles, which spread and offer sufficient resistance against the disconnection of the whip from the socket till taken out by the driver. Improved Hunting Jacket. Jean Garand, New York city.—The object of this invention is to furnish to sportsmen a hunting dress to which a cartridge pouch is attached to the back in such a manner that the cartridges may easily and conveniently be carried and taken out for the purpose of loading the gun. The pouch may also be detached and carried on the shoulder. The invention consists of an additional lining on the back, with side openings and lapels for the attaching of the pouch, which is constructed with a leather strap, so as to be detachable.

Improved Ash Leach.

John W. Kernodle and Adam H. Haun, Lebanon, Ind.—This invention relates to means for the leaching of ashes so as to secure the lye without danger of fire, and consists in a metallic covered cylinder, scalloped at the upper end to allow the lye to flow therefrom, and a metallic inclined trough upon which it rests, and by which the lye is conveyed to a suitable receptacle.

Improved Lamp Chimney Supporter.

William Mears and Henry Davies, Newport, Ky.—The object of this invention is to construct a device by which the globes of side and center lamps of railway passenger cars may be easily changed without disturbing the lamps, for the purpose of cleaning the same or substituting new ones without delay. The invention consists of a cylindrical tube connected by brackets to the sides or top of the car, which tube incloses the sliding metallic chimney resting on the globe, and allows the same to be set to any desired position by means of wedge or spring clamp arrangement.

Apparatus for Burning Liquid Fuel and Generating Steam.

William T. Scheide, Titon, Pa.—A cylinder of suitable size and strength has in its center a combustion tube. This tube is open at the bottom, and is partially filled with broken fire brick, or other incombustible material. The annular space between is filled with water. In the combustion tube or chamber, liquid fuel, or any fuel that burns without leaving a solid ash, is used, and is introduced through a tube by means of a force pump. Air is forced in through a tube which surrounds the fuel tube. The fuel and air are forced into the fire chamber together and ignited. The current or currents produced are sufficient to force the entire products of combustion up from the bottom of the combustion tube and through the water, thereby generating steam. By this apparatus it is claimed that the entire heat generated is utilized. The incombustible material placed in the combustion tube tends to break the flame and protect the tube from the effects of heat.

Improved Heating Range.

John Lawlor, New York city.—This invention consists in a certain arrangement of dampers and deflecting plate with relation to compartments at the side of the air heating chambers of the range, whereby the direction of the currents of heated gases and other products of combustion may be controlled so as to increase the temperature either in said air chambers or in the ovens which are supported above the body of the range proper.

Improved Pantaloon.

Frederick T. Hoyt, Brooklyn, N. Y.—It is proposed, in this invention, to employ elastic straps on the pantaloon, at the back, for buttoning them to the jacket, to compensate for the increase in the length of the back when the wearer bends forward, and thus allow of fitting boys' pantaloon as nicely as those worn by older persons.

Improved Truss Bridge.

Daniel C. Bower, Troy, Ohio.—This invention has for its object to furnish an improved bridge. The lower and upper chords are made double treble, or quadruple, according as less or more strength is required. In the spaces between the strands of the chords are placed dovetailed blocks, through which blocks pass the vertical rods to bind the chords to each other. The rods also pass through triangular blocks, against which the ends of the braces rest. The upper ends of the two central braces rest against the central block of the upper chord, and their lower ends rest against the blocks of the lower chord upon the opposite sides of the center of said chord. The braces upon each side of the central braces are placed parallel with said central braces, the upper end of each outer brace being directly above the lower end of the adjacent inner brace. By this construction, the bridge has no counter braces, and the weight is thrown from the center of the bridge from brace to brace to the abutments, so that the bridge cannot sag in the center.

Improved Rotary Stamp Canceled.

William Schacht, Brooklyn, N. Y.—The object of this invention is to furnish to brewers and others a convenient apparatus for canceling internal revenue and other stamps in a quick and expeditious manner, near the central part of the same. To the frame of the rotary stamp canceler is secured an ink receptacle, and below the same the inking roller. Directly above and parallel with the latter is the printing roller. The ink receptacle is provided with a narrow outlet at its lower end, opened more or less by means of a sliding gate. An ink distributor, of suitable material, is hung near to, and in contact with, the inking roller. The printing roller has side shoulders which, in connection with a pressure roller, carry the stamp strips through, so that the stamps will successively be canceled by the rotation of the roller. The lid has a recess slightly conical, from the inside toward the outside, for the insertion and adjustment of the changeable types for dates, etc. No cutting of the paper of the stamps is produced.

Improved Lamp.

Riverius Marsh, Flushing, N. Y.—This invention consists of a metal lamp top so constructed as to form an oil receiver or drip cup at the connection where the burner is attached, also an inverted collar for the attachment of the safety tube, and also a collar for attaching it to the collar or neck on the top of the glass reservoir, by screwing on or otherwise. A vent also is provided for the escape of the gas, all so as to form a strong, ornamental, and protecting detachable metal portion for the lamp.

Improved Binder for Loaded Wagons and Sleighs.

Jacob Paff, Lawrenceburg, Pa.—The object of this invention is to improve the means now in use for binding loads of lumber, logs, rails, and similar loading. The binder is placed on top of the load. The ring of a chain is attached to an arm and passed through the fork of the lever and around the load. A pivoted hook, when the lever is carried forward, now takes hold of the end of the chain. Then the lever is brought back, thus bringing the ends of the chain together and binding the load. If the chain is too long, it is brought within a slot in the hook, which holds it while a new hold is taken by the lever. To unbind the load the arm is raised, which allows the ring of the chain to slip off. When the load is bound, the chain is held by the slotted hook and the arm, so that the lever is reversed, and its small end may be used for raising the arm. This improvement does away with the old binding pole, and may be applied in one fourth of the time.

Improved Cooking Stove.

George McAdams, Vevay, Ind.—The object of this invention is to furnish a cooking stove, constructed in such a manner that the different parts may be easily packed and shipped, to be mounted by any tinsmith, and the parts exposed to the fire easily replaced. The oven is placed below the fire box, and supplied with a steady uniform heat around both sides. The invention consists in the combination of sheet and cast iron parts in such a manner that the front, back, and top plates are of cast iron, the side and bottom plates of sheet iron, the interior parts, also, being of sheet iron and cast iron, and connected by wedge strips of sheet or solid iron. The flues are arranged so that the draft carries the heat from the fire box around the oven and below the bottom of the same up the chimney.

Improved Circulating Valve for Fire Engines.

Charles A. Hague, Hudson, N. Y.—The case is attached to the discharge chamber of a fire engine by a screw, and a pipe is attached with the suction. When the pressure rises in the discharge by the shutting off of the escape, the water, acting on a small valve, lifts it against a spring and acts on the top, thus forcing down another valve and opening a passage through which the water escapes from the discharge to the suction, and thus relieves the pressure in the hose. The valve is held up, when not subject to water pressure, by a spring, and may be adjusted for different pressures or different pumps. This device is claimed to be more instantaneous in action than a relief valve.

Bracing and Reinforcing Legs of Chairs, etc.

George Francis Dawson, Washington, D. C.—This invention consists in a novel mode of bracing and reinforcing the legs of rotary chairs, by forming thereon heads, which are nicely jointed together and held by a flanged plate at top and bottom, together with a nut on the tubular screw socket.

Improved Boot and Shoe Sole.

Wendell Strasser, Taylorsville, O.—This invention relates to wooden sole shoes, for skating or walking purposes, and consists in a peculiar method of applying double nails in fastening the uppers of shoes to the soles so as to form, practically, a metallic thread, which makes the article of manufacture to all intents and purposes a sewn shoe.