

RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week; the claims may be found in the official list:—

Paper Holder.—This invention consists in a novel mode of constructing paper holders, for holding files of newspapers, and also documents and letters, the same being composed of two strips of wood or other light material, which are secured to each other so as to embrace the files of paper between them by means of a screw clamp of a peculiar construction, and provide space for gathering and folding the lower part of large newspapers, to accommodate the reader when he wishes to read the head of its columns. J. W. Poard, of San Francisco, Cal., is the inventor.

Chambering Artesian Wells.—The object of this invention is to produce an implement or apparatus by means of which the bottom of an artesian well, or any other part thereof, can be chambered out or enlarged in diameter, and it consists in a tube which carries, in a diametrical chamber at its lever end, a horizontal drill capable of being driven outward beyond the periphery of the tube, in order to cut away the sides of the well when the tube which carries it is rotated. George F. Case, of Brooklyn, N. Y., is the inventor.

Horse Collar.—This invention consists in constructing a horse collar with a wooden front portion, the rear being of leather or other flexible material, stuffed or padded, said wooden portions being provided with a leather yoke or pad, and connected by a strap, whereby a great saving is effected, both in labor and material, and a very easy and comfortable collar for a horse obtained. C. J. Fisher, of Waukon, Iowa, is the inventor.

Axle Box.—The metallic boxes, for the wheels of vehicles are, at present, made of cast iron, and as soft as possible in order to admit of the interior of the box being bored out and polished or finished perfectly true, in order to run well on the axle and avoid unnecessary friction and consequent wear and tear. Hard boxes would be far more durable than the soft ones, if they could be worked after they are cast; chilled cast iron, for instance, would answer an available purpose, but the difficulty alluded to precludes its use. The object of this invention is to obtain a box which will be hard and durable, and still admit of being bored out and polished, so as to run perfectly true on the axle. To this end the invention consists in constructing the box of wrought iron, and after boring and polishing its interior surface perfectly true, rendering the same hard by the ordinary process of case-hardening, or of steel-converting. Charles Cook, of Winsted, Conn., is the inventor.

Combined Bureau and Commode.—This invention consists in combining, in one and the same piece of furniture, a bureau and commode, the commode being so arranged, with regard to the bureau, that it can be moved out and in at pleasure, according as it is desired or not to use it—the commode, when not in use, being wholly incased within the bureau. By this combination a very neat, simple and compact piece of furniture is obtained; and in addition to a bureau and commode, other necessary articles, used for similar purposes to the commode, are also arranged in connection with it; the whole presenting a most convenient and desirable piece of furniture, worthy the examination of furniture manufacturers. George W. Koch, of No. 150 Wooster street, New York, is the inventor.

Basket.—This invention consists in making the base of baskets, hampers, and other similar structures, in such a manner as to protect the bottom and corners from injury and wear, the base being formed with as many sides as there are sides to the basket, each side being a solid piece, and the several pieces being framed or joined together at their ends in any suitable manner. E. B. Lyman, Waterbury, Conn., is the inventor.

Baling Press.—This invention relates to a press in which the follower can be operated by a slow and by a quick motion, which are combined so as to form a compact and comparatively light and easy-working mechanism. The slow motion consists of a hollow screw spindle which screws into a worm-wheel gear-

ing into a worm and it connects with the follower by a rod which passes clear through said screw spindle, and is connected to it by a suitable key. The extreme end of this rod forms a toothed rack, which gears in a suitable pinion, and if the key which connects said rod with the hollow screw spindle is withdrawn the pinion and rack form the quick motion for the plunger, which can be used independent of the slow motion. Joseph P. White, No. 418 Greenwich street, New York, is the inventor.

Apparatus for Steeping, Growing and Drying Malt.—This invention consists in effecting the malting operation by means of an apparatus composed of a wire-gauze cylinder mounted on a hollow shaft, through which steam is admitted to the helical heating pipe in the interior of the wire-gauze cylinder, in combination with a cylindrical case, one half of which is surrounded by a jacket, in such a manner that the steeping, the growing and the drying can be effected without removing the malt from the apparatus, and not only much time and labor is saved, but also a better product is obtained than by the ordinary malting process; and, furthermore, the malting operation can be effected in the hot season as well as in winter time. A. Kreuzler, of New Lebanon, N. Y., is the inventor.

Ventilator for Hats and Caps.—This invention relates to a ventilator for hats and caps, which is constructed of a supporting plate of sheet steel or other pliable material, in combination with a spring or a narrow strip of hardened sheet steel, or other suitable material, which is fastened to the supporting plate, leaving a crescent-shaped space between its outer surface and the inner surface of the supporting plate, in such a manner that, by means of the supporting plate, the ventilators can be readily secured in a hat or cap, and through the crescent-shaped space sufficient air finds access to the interior of the hat or cap to cool the brow of the person wearing the same; and, furthermore, by the flexible spring the ventilator is free to accommodate itself to the shape of the head without throwing the hat or cap out of shape. A. Komp, No. 184 Fulton street, New York, is the inventor.

Device for Holding Reins or Harness Lines.—Much annoyance and embarrassment are caused, on leaving a horse and carriage standing for a time, by the necessity of contriving some way of securing the lines in a manner that will prevent their getting under the horse's feet; the object, therefore, of this invention, is to provide a simple device, to be attached to the dash-board of a carriage, which will clamp the reins and hold them firmly until again required for driving the horse; and it consists in the construction of a wooden or metallic clamp, which is to be secured to the dash-board of a carriage, and which has two jaws, arranged so as to be pressed together by suitable springs, into which the reins are placed, when they will be firmly held until removed. T. L. Tripp, of Prescott, Wis., is the inventor.

Drill for Boring Oil and other Wells.—The object of this invention is to produce a drilling apparatus which will remove the broken and pulverized rock from the bore, and collect it in the rod of the drill, at the same time discharging the water from the rod, so as to allow the heavier matters to be retained in the rod until the receptacle provided for them is filled. This is accomplished by means of a tubular drill rod containing a central tube, which is directly above the valve box, and an annular chamber surrounding said tube, and communicating therewith by means of perforations in the sides of the tube, through which the detritus is received into the annular chamber. Lewis H. Bowman, of Norristown, Pa., is the inventor.

Manufacture of Writing Fluid.—This invention consists in the use of an ink or writing fluid composed of an acid and coloring matter that can be combined therewith, to be used in combination with a paper, the color in which may be discharged or changed by each acid, and the texture of the paper also changed or weakened by the action thereof, in those parts that are written upon, and the possibility of alteration and erasure is prevented. Henry C. Bailden, of Edinburgh, Scotland, is the inventor.

THE Farmers' Club has adjourned for four weeks.

MISCELLANEOUS SUMMARY.

PEAT.—The editor of the Lewiston *Journal*, having made a visit to Mr Farwell's peat bog, says:—Mr. F. estimates that it costs him three dollars per cord to get the peat to his bleachery; and he considers a cord of peat as valuable as a cord of wood. Estimating the wood at eight dollars per cord, there is a saving in the use of peat of five dollars per cord. Now Mr. F. has from forty to fifty acres in his peat bog, and the peat will average three feet in depth, giving certainly one thousand cords for the acre, or fifty thousand cords for the whole bog. Profit per cord \$5; profit on 50,000 cords, \$250,000.

THE value of water-tight compartments in steamers was well illustrated in the case of a collision on Lake Huron, one of the unfortunate vessels having been taken into port sixty miles or more from the scene of the accident, an unsightly wreck forward, great plates of iron hanging by shreds, bent, twisted and torn, but the joints of her first partition tight as a steam boiler.

LARGE fields of cotton are growing in California—over one hundred acres in one field looking well. The State of California offers a bounty of \$3,000 for the first one hundred acres of cotton—also \$3,000 for the first one hundred bales of three hundred pounds each. Over \$100,000 is donated by the State for the encouragement of agriculture, in the raising of various products.

THE Russian Government has lately given up the working of its gold mines in the Ural Mountains, and has arranged for them to be worked by private enterprise. The results of this change have been very remarkable. The quantity of metal extracted is now increased ten-fold.

A NEW RAT TRAP.—Take a smooth kettle, fill to within six inches of the top with water, cover the surface with chaff or bran, place it where the rats harbor, and it will drown all that get into it. Thirty-six were taken in one night by this process.

It is stated that there is not a single tun of iron in the whole Lehigh Valley remaining unsold at the present day, and many of the establishments have orders ahead.

New Fuel.

A newspaper of Tepic, Mexico, speaks in high terms of a late discovery that has been made to apply to purposes of fuel the stone of the guacoyol, the fruit of a species of palm that grows on the Pacific side of Mexico. From experiments made on board of English war steamers, it has been discovered that, used as fuel, the stone of the guacoyol is equal to the best coal, both for the length of time it burns and the intensity of heat produced. It has likewise the advantage over coal, that there is no disagreeable smell from the exhalation of gas, nor does it dirty the holds, nor the persons who have to take it out; its shape is also in its favor for employing directly, and it is not subject to spontaneous combustion or damage by leakage of the ship.

The guacoyol, as already stated, is the fruit of the palm with which nature has covered the Mexican coast of San Blas and the valley of Banderas. The quantity of this fruit which can be collected annually is incalculable. Thousands of tons, says the Tepic newspaper, can be gathered at a very slight expense, and easily supply all the steamers of the Pacific coast—the difference of price between it and coal at San Francisco being about one-half. The objection is that the supply can only be temporary, as the daily consumption of one vessel would take the produce of thousands of trees to supply it.—*Mining and Petroleum Standard.*

Aniline Colors.

Few of the aniline colors will stand the continued action of light; to which difficulty must be added, in the case of oil painting, their rapid decomposition by the common varnishes, which mostly contain metallic oxides. A recipe has been furnished us for preparing these colors in a manner to avoid all objections. The dye is to be dissolved in alcohol; this solution is to be saturated with gum dammar, the filtrate to be poured into a solution of salt water, and dried. This is then incorporated with an oil varnish which must be free from lead.—*Druggists' Circular.*