

HUMAN HAIR.

In every age and country, the hair of woman has been considered an object of beauty; and St. Paul states that long hair is a glory to her. The form of human hair varies from that of a delicate round tube to that of a minute flat ribbon; and it is supplied through the interior with an oil from which it receives its peculiar color. Round hair is straight and is generally soft; while flat hair is usually crisp or curly. The ancient Greeks and Romans admired yellow or golden hair as a mark of female beauty; but tastes differ in individuals and nations. It cannot be questioned, however, that long soft hair, whether flowing in spirals, or in a waving form, and of whatever color—black, brown, or yellow—is attractive and much admired. Every woman seems to be animated with a natural desire to obtain long hair, and every man seems ambitious to preserve his natural head-gear in all its native strength.

BALDNESS.—As baldness is generally considered a calamity by both sexes, its causes should be investigated in order to provide a remedy, if this is possible. The *American Phrenological Journal*, in a recent interesting article on hair, states that baldness "is always an unnatural and therefore a diseased condition; though it by no means implies general derangement in all cases. It is believed by some to indicate power and activity of mind, and this may sometimes be the case; as undue mental exertion, by producing a febrile condition of the head, affects the hair in the same way as a fever, though not in the same degree. But we believe that baldness oftener than anything else, indicates the wearing of our modern water-proof and air-proof hats, which keep that portion of the head which they cover, constantly heated and unventilated. In corroboration of this remark, it may be observed that the hair is generally thick and healthy below the point covered with the hat, and that women, who use no air-tight covering for the head, are seldom bald." As if to contradict this latter theory of the cause of baldness, however, the *Journal* adds, "We are told that of all the honors conferred upon Cesar, there was none that he accepted more gratefully than the right to wear the civic crown, which served to conceal his baldness." Cesar certainly never wore one of our modern water-proof air-tight hats; but he possessed an intensely active mind, which may have caused his baldness. We also read that the prophet Elisha was bald, though he surely never had the misfortune to wear an air-tight hat; for he went uncovered. Baldness is certainly due to a disease of the scalp, or the roots of the hair, but the cause of this disease is not understood. A recent writer upon this subject in England, states that the ancient Britons in their barbaric state, possessed hair long, strong, and sufficiently thick to resist the cut of a sword; and the prevalence of baldness in Englishmen of the present day he attributes in a great measure to increased mental pursuits.

Imnumerable are the lotions and compounds now sold under the pretense of keeping the hair from falling out; others under the pretense of producing long flowing hair; while others again profess to cure baldness and restore the hair to all its youthful vigor. Hogsheads of liquids are sent forth under such pretenses; but they all seem to be as effectual in accomplishing their objects, as so much water. The *Phrenological Journal* comes nearer the truth, respecting the preservation of the hair, than all the professors of hair fertilization. It asserts that vigorous health conduces most to preserve the hair, and says "when all the vital functions are in good working order and activity, we find the hair bright, glossy, and pleasant to the touch; but on the contrary, when the body is diseased, the blood impure, or the system feverish, the hair becomes harsh, dry, and coarse, and the head covered with dandruff. With returning health, the hair resumes its original quality and condition."

GRAY HAIR.—With advancing years, the hair of the head loses the color of youth and becomes white. Gray hair is simply a mixture of white with hairs of the previous color—brown or black. This change of hue is not caused by disease of the hair itself, but from a want of the oil supplied by the hair follicles. White and gray hair grow as luxuriantly as the best crops of red, brown, or sable. The cause of the

natural-colored hair oil becoming deficient, is not well known. It is on creditable record that many persons have become suddenly gray from fear and grief. Byron in his immortal "Prisoner of Chillon" touches on this topic with a master hand:

"My hair is gray but not with years,
Nor grew it white in a single night."

We are acquainted with a gentleman whose hair turned from a jet black to gray within two weeks, during intense mental study and anxiety; but, strange to relate, all those gray hairs afterwards departed and his dark locks returned again. In some families early gray hair is hereditary. The members of a large family of men and women known to us, have become gray at from twenty to twenty-five years of age, and almost snow-white at thirty-five. Their hair is strong and they are not subject to early baldness. The hair of the father of this family became white at an early age. In order to retain a youthful appearance, many persons dye their gray hair. Preparations of the nitrate of silver are chiefly used for this purpose. For the bald-headed, the only sure receipt to impart a more youthful aspect, is the use of an uncomfortable wig. During the early part of the last century, wigs were fashionable, and were worn by both old and young folks. When we gaze upon the pictures of the great men of that era, with their splendid flowing locks, it should not be forgotten that they were indebted to the wig-maker for them.

LONG AND SHORT HAIR.—Many customs have prevailed among the fair sex respecting the mode of arranging the hair, and they have a right to adopt a variety of changes; but cutting the hair short and wearing it like boys is not commendable. Men have at different times worn the hair long. This has ever been condemned as an unscriptural custom. In the days of Charles the First of England, the Cavaliers, who despised close religious forms, wore long hair; while the Puritans cut theirs short, and were called "round heads." It has been calculated that by continual cutting and shaving of the hair, about seven feet in length is removed from a man in twenty-five years. Some writers assert, that the practice of close cutting and shaving tends to weaken the body. Such writers draw a powerful argument from old Sampson, who, when all unshorn, slew several thousand Philistines with the jaw-bone of an ass.

COLOR OF THE HAIR.—All the native people living under the tropics have black hair; while the light-haired races are chiefly found in the cold regions. But this is not an arbitrary distinction, as all the aboriginal races on the American continent, extending from Patagonia to the Arctic sea, have black hair. The Danes of Europe are held to be the red-haired race; the Germans the fair-haired race. In Great Britain and Ireland, there is no distinctive color of the hair; but dark brown is the most common in the former, and black in the latter. The ancient Gauls of France and the Caledonians of Scotland, were described by the Romans as yellow-haired races; but this color of the hair is now seldom seen in any part of the world. As the people of the United States are composed of a mixture of all the European nations, their hair of course is as mixed in color as their descent; but in childhood, it is most generally fair, growing darker with advancing years, until full maturity is reached.

The President's Proclamation of Thanksgiving.

President Lincoln has issued a proclamation appointing the last Thursday of November as a day of general thanksgiving to Almighty God for the blessings and favors bestowed upon the land, even amid the havoc and desolation of our sad war. The proclamation is couched in chaste and beautiful language, and is pervaded with an humble and devout spirit. We take this opportunity of suggesting that all the governors of the loyal States appoint the same day for the usual States thanksgiving, so that it may be kept in the spirit of unity and the bonds of fraternal concord, by every household in the land.

WOODWARD'S Mill, in Woodstock, Vt., consumes 175,000 lbs. of wool annually, all of the finest quality, and at present mostly foreign wool. The doekins made are equal to the best French. Vermont grown wool is the finest in the world, having taken the first prize at Hamburg, in competition with European Saxony fleeces.

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:—

Grain Dryer.—This invention consists in the employment or use of a series of spiral conveyors in connection with perforated concaves, in which the conveyors are placed and work, and placed, with the concaves, over a kiln or hot-air chamber, and all arranged in such a manner that the grain to be dried will be moved along in a thin stratum, and subjected in the most efficient manner to the hot air, which dries the former by evaporating the moisture contained in it. It also consists in a novel way of feeding the grain to the conveyors and operating or driving the latter; and, further, in a means employed for cooling the grain after the drying process is performed, to admit of the grain being stored away safely in bulk. W. H. Sutton and J. J. Gibson, of Brantford, Canada West, are the inventors of this improvement.

Treating Sulphates of Copper, Cobalt and Nickel to obtain their Chlorides.—Heretofore it has been customary for the separation of two or more sulphates to use the difference of temperature or concentration of a solution and let it crystallize; but the sulphates of copper, cobalt and nickel—the separation of which cannot be effected by crystallization, nor by the usual mode of separation employed for those metals—have been precipitated by the addition of lime or other reagents, and then dissolved in muriatic or other acid, so as to obtain those metals as chlorides, in which form they are easily separated. The object of this invention is to obtain the chlorides of those metals in a more economical manner, and to this end it consists in the treatment of the sulphates by the use of chlorides of sodium or other compounds of chlorine, such as chloride of potassium, chloride of calcium, chloride of magnesium, chloride of strontium, and the hypochlorites of lime, potassa or soda; but especially the chloride of sodium, because of its cheapness and the readiness with which it can be obtained. Alfred Monnier, of Philadelphia, Pa., is the inventor of this improvement. Further information may be had of Geo. T. Lewis, of Philadelphia, Pa.

Diving Apparatus.—The object of this invention is to enable a diver to carry with him a sufficient supply of fresh air to last for several hours, and also buoys which he can inflate at pleasure, so that he can rise to the surface, whenever he thinks proper, without the aid of other persons. The invention consists in the application to an ordinary diving dress of a reservoir which is capable of containing a sufficient quantity of compressed air to last the diver for several hours, and which is strapped to the shoulders or otherwise secured to the dress, communicating with the interior of the same by a pipe provided with a faucet, in such a manner that the supply of air to the interior of the dress can be regulated at any moment, and the driver is free to move in any direction, carrying on his back the required supply of air; the invention consists also in combining with the diving dress and air reservoir two, more or less, expansible buoys communicating with the interior of the reservoir by means of a pipe or pipes provided with a faucet, in such a manner that by admitting air to the buoys the driver is enabled to rise to the surface whenever he may desire and without assistance. T. C. McKeen is the inventor of this apparatus.

Rock drilling Machine.—This invention relates to a new and improved rock-drilling machine for tunneling and other purposes, and it consists in constructing and arranging the parts in such a manner that the drill may be turned and adjusted in either a vertical or a horizontal plane, so that holes may be bored in any desired direction, that is to say, either vertically, horizontally, or at any degree of inclination between said positions, and at any point in a circle the plane of which coincides or is parallel with the axis of the drill. The invention further consists in a novel arrangement of means for operating the drill, whereby the same is drawn back from the hole after each stroke and turned while being drawn back, thus imitating or corresponding with the ordinary hand manipulation of the drill, the blow being given the drill by means of a hammer operated by a cam and

springs. The machine is placed or fitted upon a truck to enable the drill to be readily placed in position or adjusted to its work. J. S. French, of San Francisco, Cal., is the inventor of this machine.

Stuffing for Mattresses &c.—This invention, which was patented last week, consists in a peculiar manner of treating cork waste, whereby the same is rendered soft and elastic. The stuffing thus obtained is particularly adapted for mattresses, its principal advantages being its coolness and cleanliness, affording no refuge to vermin. It is also free from moisture, and for these reasons a mattress made of this cork stuffing is particularly adapted for hospitals and for the army. Its lightness recommends it to masters of vessels. A. C. Crondal, of 36 Mott street, New York, is the patentee of this improvement.

APPLICATIONS FOR THE EXTENSION OF PATENTS.

The following persons have applied to the Commissioner of Patents for the extension of their patents:—

Improvement in Rotting Flax.—Lemuel W. Wright, of Palmer, Hampden county, Mass., has petitioned for the extension of a patent granted him on the 25th of December, 1849, for an improvement in rotting flax, said patent expiring Dec. 25, 1863. It is ordered that the case be heard at the Patent Office, Washington, on Dec. 7, 1863, at 12 M. All persons interested are required to show cause why the claim should not be granted. Persons opposing extension are required to file their objections in writing at least 20 days before the day of hearing.

Spark Arrester.—James Radley, and Margaret D. Hunter, of New York city, Administrators of John W. Hunter, deceased, for an extension of a patent on a spark arrester, obtained on Jan. 2, 1850, and which expires on Jan. 2, 1864. Claims to be heard Dec. 14, 1863.

Steam Boiler Furnaces.—Benjamin Crawford of Allegheny City, Pa., for an extension of patent granted him for an improvement in steam boiler furnaces, on Jan. 29, 1850, and which expires Jan. 29, 1864. Claims to be heard Jan. 14, 1864.

All persons interested in the above cases are notified to appear (as per directions in the first case) and state their objections, &c., at the Patent Office, Washington, D. C.

NEW BOOKS AND PUBLICATIONS.

WHAT TO EAT AND HOW TO COOK IT. P. Biot. D. Appleton & Co.

It is an old adage that "Heaven sends meat but the devil sends cooks;" and in view of the messes, misnamed food, served up daily in a thousand homes in the land, it would seem as though a little instruction in the art of cooking is sadly wanted. It is just as necessary to perfect health that food should be appetizing and wholesome, as it is imperative that man must eat to preserve life; and here it is that good cooking fulfils an important part in the economy of life. No man need make a god of his belly, as the saying is; but the simplest food may be easily spoiled by one ignorant of the first principles of the culinary art. In the book before us there are a quantity of recipes for cooking every conceivable kind of game, meat, vegetables, soups, &c., and to judge from the modes of preparation they are not only wholesome and savory, but cheaply made—a consideration of no small importance at the present time. Innumerable cookery books have been written, but we have seen none more comprehensive or more clearly written than "What to Eat and How to Cook It."

TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a bona-fide acknowledgment of our reception of their funds.

NEW PAMPHLETS IN GERMAN.—We have just issued a revised edition of our pamphlet of *Instructions to Inventors*, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon application at this office. Address MUNN & CO., w. New York.



ISSUED FROM THE UNITED STATES PATENT-OFFICE

FOR THE WEEK ENDING SEPTEMBER 29, 1863.

Reported Officially for the Scientific American.

* * * Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

40,088.—Suspension Rack for Coupon Tickets, &c.—E. P. Bacon, Milwaukee, Wis.:

I claim a case or rack, for coupon tickets or other articles to which it may be adapted, provided with horizontal bands or supports, a, a, attached to upright standards, b, b, with projections, d, d, on the latter, at the several points of intersection, hooks or other means of suspension being affixed to the horizontal bands, from which tickets or other articles may be suspended, when constructed in this or any other manner substantially the same, for the purposes set forth.

40,089.—Marking Brush.—E. P. Clark, Northampton, Mass.:

I claim the elastic fountain, B, in combination with the tube, A, and brush, G, as shown and described for the purpose set forth, also the brush, G, connecting with the handle, C, sliding within the tube, A, in the way and for the purpose before described.

40,090.—Furnace for Grain Dryers.—M. C. Cogswell, and A. G. Williams, Buffalo, N. Y. Ante-dated Sept. 20, 1863:

We claim the arrangement of the flues, c, l, c, 2, 3 and D (including their valves) relatively with the blower, H, hot-air chamber, E, and pipe, M, for the purposes and substantially as described.

40,091.—Flax Brake and Swingler.—Samuel Cowan, Bloomfield, Iowa:

I claim the combination of the rollers, F, G, N, O, with the endless aprons, B and I, and reel, P, when the two latter move at the same speed, substantially in the manner and for the purposes herein set forth.

I also claim combining with a flax brake, constructed and operating as herein described, the swingler, T, substantially in the manner and for the purposes set forth.

40,092.—Cartridge Bullet.—W. H. Dibble, Middletown, Conn.:

I claim the within-described new article of manufacture, to wit: A quick powder, ductile-metal tubular cartridge projectile, a, b, c, e, with a quick powder charge, within it, and with a fibrous covering, h, and a highly inflammable cementing and igniting cap, i, all as set forth.

40,093.—Skate Fastening.—W. H. Dutton, Utica, N. Y. Ante-dated Sept. 20, 1863:

I claim, first, Tons, H, in combination with the stationary straps, in the manner and for the purpose described.

Second, The double turn or pulley in the strap, in combination with the metal loops and button fastenings, as described and for the purposes described, the whole being arranged and operating substantially in the manner herein set forth.

40,094.—Lamp.—M. B. Dyott, Philadelphia, Pa.:

I claim a lamp made with a drip-trough depression, b, at its neck and a handle-depression or indentation, C, at its side, with attached handle, C, therein, all as herein shown and described.

[This invention relates to that class of lamps designed for burning coal oil, and it is believed that it possesses many advantages over the ordinary burners.]

40,095.—Cultivator.—B. F. Field, Sheboygan Falls, Wis.:

I claim, first, The arm or drag-bar, G, when constructed as described.

Second, The combination of the arm, G, the cultivator, E, F, the independent rolling shield, K, and the arm, L.

Third, The combination of the crank, R, the pulleys, t and s, the shaft, P, and the cords or chains, r and p, for the purpose of elevating the cultivators and shields.

Fourth, The wheels of a cultivator adjustable on their shaft or axle, by means of the collars, n, n, and set screws, o, substantially as set forth.

40,096.—Cultivator.—B. F. Field, Sheboygan Falls, Wis.:

I claim, first, A cultivator shear, when constructed substantially in the manner described, to be attached to the ordinary drill tooth.

Second, The long handle, H, in combination with the lifting bar, G, substantially as described and for the purpose set forth.

40,097.—Rock Drilling Machine.—J. S. French, San Francisco, Cal.:

I claim, first, The manner of arranging the frame, I, of the machine, so that it and, consequently, the drill, T, may be adjusted in either a vertical or horizontal position or at any degree of inclination between those positions, and at any point in a circular plane parallel with the axis of the drill, to wit: by having the frame, I, hung loosely on an arm, which is attached to a block or nut, F, fitted in a vertical column, G, having a screw, all placed in it, which passes through the block or nut, and the column arranged to turn on a plate, B, on the truck, A, the column being retained at any desired point, and also the frame, I, by the means herein described or their equivalents.

Second, The drawing back of the drill, T, after each stroke, by means of the slide, R, connected with the drill through the medium of the collar, c, fitting in the ledge, c', on the slide, the slide being operated by the rack, r, pinion, s, pawl, S, and crank, n on shaft, K, and springs, u, u, or their equivalents as set forth.

Third, Rotating or turning the drill, T, during its backward movement, by means of the box, V, gearing, v', g', ratchet, h', and pawl, V, attached to the pawl, S, substantially as set forth.

Fourth, Operating the hammer, Q, through the medium of the cam, L, slide-bar, M, and springs, P, P, substantially as specified.

40,098.—Hay Fork.—Theodore Foster, of Coxsackie, N. Y.:

I claim, first, The hinge, b, secured to the top of the handle, B, and operating in combination with the latch, D, and with the fork, in the manner and for the purpose herein shown and described.

Second, The ring, g, and loop, i, in combination with the toggle arms, d, c, and latch, D, all constructed and operating in the manner and for the purpose specified.

[This invention relates to certain improvements in the arrangement of the bale from which the fork is suspended, and those parts which retain the bale while the fork is hoisted, and releases the same and allows the fork to tilt when it is desired to discharge the load; also, to a certain improvement in the position and shape of the tines, whereby the same are rendered more firm and less liable to break than tines of the ordinary construction.]

40,099.—Printing Press.—G. D. Gordon, Brooklyn, N. Y.:

I claim, first, Locking and holding a rocking platen securely in a stationary position for the purposes fully described.

Second, I claim placing the shaft of the rocking platen between

the impression shaft and the vibrating bed shaft, thus causing the shafts to fall in a direct line with the connecting rods, at the moment of impressions, for the purpose or purposes set forth.

Third, In combination with the shafts so arranged, I claim the manner described of operating the rocking platen for the purpose specified.

Fourth, I claim the end gage, Y, constructed and operated substantially as shown; also, the combination of such end gage, Y, into the drop gage, X, for the purposes herein fully described.

40,100.—Axle Box for Vehicles.—S. F. Green, Croton Falls, N. Y.:

I claim, The combination with the two parts of the divided box, D, axle, A, and nut, B, of the nut, E, in the manner and for the purpose herein shown and described.

[This invention consists in having the axle box made in two longitudinal parts, and having a screw thread cut on the outer ends of said parts to receive a rack, which is provided with a circular plate or flange to fit into the outer end of the hub, and serve as an outer bearing for the box and retain the same in a firm position in the hub, the interior of the box being lined with Babbitt metal, whereby the usual difficulty of the working of the box in the hub is avoided, and the box and axle are rendered capable of resisting much wear.]

40,101.—Sheep Rack.—William Heaton, Center Township, Pa.:

I claim the sheep rack, provided with the double inclined bottom, E, sliding fenders, O, and feed-holders, G, provided with prongs, I, the whole constructed, arranged and operating substantially as herein set forth.

40,102.—Slate Pencil Sharpener.—J. M. Hicks, Boston, Mass.:

I claim the manufacture of slate pencil sharpeners or other equivalent instruments, without a separate casing or frame, permanently to hold the roughened surfaces in their relative position as set forth, by forces upon one face upon one plate or piece, which is bent in the manner and for the purposes herein described.

40,103.—Quartz Crushers.—Alonzo Hitchcock, Chicago, Ill.:

I claim the combination of the circular cap and trough and the three crusher wheels, constructed and operated substantially in the manner described.

40,104.—Cooking Stove.—J. R. Hyde, Troy, N. Y.:

I claim, first, In a cooking stove having an oblong fire-chamber, A, with pot-holes, h, h', over it, and a live air-chamber, D, D, alongside with apertures, e, between, and a fire-flue, F, extended from the said fire-chamber first over the said air-chamber, as herein described, the removable air-chamber cover, i, i, constructed in several parts and secured to the said air-chamber by clamps, k, k, as and for the purposes herein set forth.

I also claim a cooking stove having two separate sub air-chambers, D, D, arranged between an oven, L, and a fire-chamber, A, and communicating with the latter by apertures, e, e, and with the open air by passages, m, m', separate from each other and from the main draft-chamber, C, and provided with independent dampers, n, n', when a fire-flue, F, is extended from the said fire-chamber along the said oven, a, and under pot-holes, h, h' 2, 3, in a top-plate, G, substantially as herein described.

40,105.—Adding Machine.—M. C. Jeffers, New York City:

I claim the combination in an adding machine of the wheels, B, B, hubs, C, C, and verges or escapements, F, F, substantially as and for the purposes set forth.

40,106.—Register for Account Books.—A. F. Jones, Douglas, Mass.:

I claim the merchant's monitor, being circular to economize room, revolving for greater convenience, and to save steps by bringing the books round to the operator, with movable cases and alphabetically and numerically arranged, essentially as above described.

40,107.—Planting Hoe.—C. N. Jones, Galway, N. Y.:

I claim the arrangement of the foot, E, at the lower end of the seed slide, E, when the latter works in a box, C, secured to the handle of a hoe, A, in the manner and for the purpose shown and described.

[The object of this invention is an attachment to an ordinary hoe whereby corn or other seed can be dropped simply by pushing the hoe down on the ground, and the time usually lost in counting the kernels can be saved.]

40,108.—Chime Bell for Horses.—Charles Kirchoff, Newark, N. J.:

I claim, first, The contrivance, a, a, or its equivalent, to attach and support on or about the horse's number of bells and clappers or their respective equivalents, connected with each other and with the contrivance in the manner and for the purpose as specified.

Second, The combination of rein rings or equivalents with said contrivance as set forth.

Third, The method to produce a peculiar harmonic prolonged alarm by governing and extending the operation of the hammers or clappers and bells by means of springs or vibrating materials, and by other devices described, and the manner in which these different parts are arranged and combined with each other, and also with the contrivance, a, a, as specified herein.

40,109.—Attaching Labels to Bales, &c.—E. A. Locke, Boston, Mass.:

I claim the carrier, A, when made with an end gradually tapering to a point, and preceding the anchoring device, provision being made in or on the carrier for attachment thereto of the detachable anchor.

And I claim so making the anchor that it may be attached to the side and near the point of the carrier, so as to pass easily into the bale with the carrier, and be left therein on withdrawal of the same.

40,110.—Washing Machine.—T. R. Markille, Winchester, Ill.:

I claim, first, The combination of the furnace, C, with the bottom-plate, of a washing machine in the manner and for the purposes as described.

Second, The method of operating the traveling squeezer, L, by means of the crank-shaft, F, pitman rod, I, and swing arms, h, herein described, whereby the purposes set forth are effected in a simple and efficient manner.

40,111.—Cartridge.—Edward Maynard, Washington, D. C.:

I claim the formation of one or more clamping or retaining tongues in the upper rim of a metallic cartridge by sitting the edge of the same substantially in the manner and for the purpose herein set forth.

40,112.—Metallic Cartridge.—Edward Maynard, Washington, D. C.:

I claim combining with a metallic or otherwise cartridge, a suitable retracting arm, chain, thong or cord, in such a manner as to avoid the necessity of a distinct or unusually thick bottom thereto, substantially in the manner hereinbefore described.

40,113.—Car Seat Lock.—George McGregor, Cincinnati, Ohio:

I claim the arrangement and combination of the case, A, with lug, j, and pin, m, hollow key, C, with double shouldered bit, k, and spring bolt, B, all constructed and operating in the manner and for the purpose shown and described.

[The object of this invention is a latch peculiarly adapted for locking the backs of car seats in either position in which the same may be brought, and arranged in such a manner that the same can be made at a trifling expense, requiring a comparatively small quantity of metal, and that is strong, durable and not liable to get out of order.]

40,114.—Diving Apparatus.—T. C. McKeen, Dunkirk, N. Y.:

I claim, first, The employment of the independent air knapsack, B, constructed and operating substantially in the manner and for the purpose herein shown and described.

Second, The arrangement of the expandable buoys, C, and diving reservoir, D, in combination with the air reservoir, B, and diving dress, A, constructed and operating substantially as and for the purpose described.

40,115.—Guard Attachment for Locks.—William Miller, Boston, Mass.:

I claim the clasp, D, constructed substantially as shown, so as to be