

beveled wheel, B, provided with one or more faces, with the smooth conical rollers, D, D, one or more, and boards, E, when these several parts are united together and arranged for joint operation, substantially in the manner and for the purpose set forth.

[This invention consists in the use of a rotating beveled face wheel armed with teeth and used in connection with conical taper rollers, one or more, having journals fitted in yielding bearings, and arranged in such relation with the wheel that the ears of corn are allowed to descend by their own gravity down the "bite" or angle formed by the contact of the wheel and rollers, and the husks stripped from them in an expeditious and perfect manner.]

BREECH-LOADING FIREARM—E. T. Starr, of New York City: I do not wish to be understood as limiting myself to the special construction of the parts, as formal changes may be made, such as the substitution of equivalents having the same mode of operation.

I claim opening and closing the rear end of the barrel, to insert and inclose the charge by a plate turning on an axis below, and the plane of the rear face of the barrel, substantially as specified, when this is connected and combined with a wedge, or its equivalent, operated by a lever below, substantially as specified, so that in the act of drawing out the wedge to liberate the breech plate, the rear end of the barrel shall be opened to receive a charge, and by the act of lifting or forcing up the wedge the charge shall be inclosed, and the breech-piece secured, while at the same time all the injurious effects of expansion and contraction and of fouling are avoided, as set forth.

COMBINATION STEAM VALVE—Robert Stewart, of Elmira, N. Y.: I claim the valve, e, with the heads, e', as guides or wings, the chamber, g, in combination with the outer chambers, g, and steam head, B, against which valve, e, is pressed up, forming a steam joint of rating as a self-adjusting valve, operating as described, and for the purposes set forth.

MAKING PLIERS—Chester W. Sykes, of New York City: I claim connecting the jaws, C, of the pliers or pincers to the portions of the handles, A, above and below the center pin or fulcrum, E, upon which they move by pins, D, D', at points diagonal with each other, and at equal distances therefrom, the lower set of the said pins, D', being inserted and allowed to traverse (with the opening and closing of the handles and jaws) in longitudinal slots, E, in the lower parts of the said jaws, C, substantially in the manner and for the purpose described.

[The jaws of these pliers are connected to the handles by pins, arranged diagonally with each other, and at equal distances from the center pin on which the handles move; one set of connecting pins move in parallel slots, so that the jaws are opened and closed parallel with each other, and take a more firm grip of the object grasped by them than if they opened and closed upon a fixed center pin, as heretofore.]

GATE—William Tobey, of Naples, N. Y.: I claim opening and closing the gate by the use of the parallel pivoted levers, J, D, when arranged in the manner and for the purposes set forth.

BEDSTEAD—William S. Todd, of Mechanicsville, Iowa: I claim first, Attaching the ends of the side rails D, D', of the bedstead, to the foot and head posts, B, E, by the butt hinges, E, E', arranged in reverse positions with each other, so as to enable the said side rails and the head and foot rails to be folded together almost parallel with each other, in the manner and for the purpose described.

Second, I also claim the combination of the right-angled brace or rod, I, groove, in which it traverses, and turning winged or cam shafts, M, for disengaging the right-angled end of the said rod from the openings in the projections on the inner sides of the side rails, substantially as described.

[The head and foot posts are connected to the horizontal side rails by hinges, those on each side rail being arranged in reverse positions to each other, to enable the bed to be folded together to facilitate its removal from place to place. The sacking is formed of cords, which admits of this movement of the posts and rails, and when spread out, the side rails and head and foot posts are retained rigidly rectangular by pins properly applied.]

PRINTING PRESS—Ervin B. Tripp, of New York City: I do not claim producing a printed impression from type attached and revolving with a type cylinder.

But I claim, first, The employment in connection with the type cylinder, D, of a cylinder, or rotary printing press, of a flattened plate or type bed, H, in which the type to produce the printed impression upon the paper are placed, which plate or type bed is revolved with that cylinder, and is so connected with and attached to it as to have the face of the type contained in it move over the impression roller, I, in the arc of a circle, as and for the purposes set forth.

Second, The feeding roll, L, operated by a positive motion, as specified, when combined with and elevated and depressed by the arms, M, and cams, N, in the manner and for the purpose described.

Third, The feeding guide, O, operated in connection with the feeding roll, L, as and for the purpose set forth.

PORTABLE FIELD FENCE—Archibald B. and Madison Vandemark, of Phelps, N. Y.: We claim the marking of the locking batten, H, on the same side of the rails with the end batten, F, and its combination therewith, and with the locking batten, e, and end batten, f, and forming a lock, substantially as described, and for the purpose specified.

MODE OF FILLING WATER TANKS AT RAILWAY STATIONS—Charles Weed, of Milfordville, Ill.: I claim the combination and arrangement of the yielding track, B, with the compound levers, C, G, connecting bars, E, or their equivalents, weighted segment lever, F, ratchet pinion, H, and gear wheels as required, for giving motion to pump lever, L, substantially in the manner and for the purpose set forth.

SOREW CUTTER—Thomas Whitaker, of Cincinnati, Ohio: I am aware that the slot, h, the adjusting pin, I, the hook, L, and the lever, G, have been previously used in a similar connection for regulating and adjusting the cutters of a die head, and I therefore do not claim them as my invention.

But I claim the combination of the shaft, E, the sheaves, F, F', the yokes, K, K', and the guides, C, C, with the dies, D, D, when arranged substantially as described, for the purposes set forth.

APPARATUS FOR RAISING SUNKEN VESSELS—Aldridge Windham, of New York City: I claim the construction, arrangement and combination of the rigid and elastic inflatable air vessels, A and B, together constituting the raiser when so united, and so small as to be conveniently carried by any vessel which they can raise, essentially in the manner and for the purposes fully set forth.

I also claim the portable shoe, d, so constructed of wood and iron, or other material, as to be manageable under water, so as to be easily applicable to the sunken vessel, to receive the cable for raising, and protect the vessel from abrasion or jamming by the cable, essentially in the manner and for the purposes fully set forth.

I also claim the inflatable elastic stopper, L, so constructed as to be easily thrust through a leak or opening in the vessel, and afterwards inflated with air, which stops the opening, so that the sunken vessel may be exhausted of water to assist its raising, essentially in the manner and for the purposes fully set forth.

GUARD FINGERS FOR HARVESTERS—John W. Brokaw, (assignor to Warder, Broker & Child), of Springfield, Ohio: I do not claim, broadly, making the cap of harvest or guard fingers of wrought or malleable iron with a base of cast iron.

But I claim the peculiar construction of the cap, B, as described when made of wrought or malleable iron, and connected to the cast iron base, A, and to the finger bar, in the manner and for the purposes set forth.

MODE OF LAUNCHING VESSELS—Gordon Conklin (assignor to W. T. Conkling), of Conklingville, N. Y.: I am aware that balls have been used for raising vessels on ways, and they have also been used an anti-friction devices in various ways.

I do not claim, broadly, therefore, the employment or use of balls, separately considered.

But I claim the runners, c, balls, a, and ways, A, combined and arranged substantially as and for the purpose set forth.

[The object of this invention is to facilitate the starting of a vessel on its ways, and thereby obviate the delay and embarrassment usually attending the launching of vessels, especially those of large dimensions. The invention consists in the employment or use of runners provided with balls, and used in connection with ways, whereby the desired end is attained by very simple and effective means.]

PRESSURE AND VACUUM VALVE—William Hardy and John Parkinson (assignors to themselves and Aaron Bates), of Philadelphia, Pa.: We claim the valve chamber, A, spring valve, B, and inner valve, E, with their respective openings and passages, when constructed and arranged in respect to each other, as and for the purpose set forth.

CAR SEATS AND COUCHES—Alexander M. Holmes (assignor to himself and Albert G. Purdy), of Eaton, N. Y.: I claim the combination and arrangement of the specific devices set forth, substantially as described for the purposes indicated.

SEWING MACHINES—George W. Hubbard, (assignor to himself, Walter Hubbard, W. L. Bradley, and N. L. Bradley), of Meriden, Conn.: I do not claim the operation of the looper by means of the needle, as this was patented by T. J. W. Robertson, May 22, 1855.

But I claim the looper composed of the fixed plate, c, the elastic plate, d, d', and the hook, i, applied to be operated by and to operate in combination with the needle, substantially as specified.

[This invention consists in a looper of novel construction, operated by the eye-pointed needle, and operating in combination with it, to sew what is known as the "chain stitch" with a single thread.]

MACHINERY FOR DRAWING AND TWISTING WOOL—John W. Kennedy and John T. Plummer, of Plainfield, Conn., assignors to themselves and John Batchelder, of Lisbon, Conn.: We do not claim the attachment of the front drawing rollers in a rotating tube, through which the roving passes, so as to give the twist between the back and front drawing rollers, as we are aware that such application of the rollers has been made with a different and less simple contrivance than we have employed to produce the rotary motion of the so attached rollers.

But we claim first, The combination of the tubes, F and G, the toothed drawing rollers, and the convolute groove, h, the whole applied and operating substantially as described, to effect the draft and twist simultaneously, or either alone.

Second, Making the upper part of the frame which carries the back drawing rollers, and the rollers, or their equivalents, which carry the roving to be drawn and twisted, adjustable vertically, substantially as and for the purpose specified.

[A full description of this invention will be found on another page.]

STONE-HOLDING MACHINES—Elezor B. Knight, (assignor to himself and Nathan Kellogg), of Malden, N. Y.: I claim first, A box or holder, detachable from its guiding or supporting frame, and provided with sets, and means as recited for holding stones or other substances to be operated upon in being rubbed or ground, and which can be adjusted to plain or beveled edges, and for angular pieces, as described.

Second, I claim the angular guides or standards, as arranged for keeping the box or holder in its proper position in relation to the rubbing bed.

Third, I also claim the adjustable rests or supports, A, for keeping the box or holder at any point desired, as set forth.

RAKING AND BINDING APPARATUS FOR HARVESTERS—Allen Sherwood (assignor to E. P. Senter, Albert Goss, and Daniel Woodworth), of Auburn, N. Y.: I claim the traversing the double rake made to rock in its supports, to bring its fingers into and out of action, and automatically fastened and released, substantially in the manner described, and for the purposes set forth.

I also claim in combination with the fingers, t, for throwing the gathered gravel up into the concave of the arm, u, for carrying the binding wire up and over the sheaf, and placing the wire in the slot of the twisting wheel, substantially as described.

I also claim in combination with the twisting wheel the sliding knife for cutting off the wire, substantially as described.

I also claim, in combination with the cutter bar and its stud, the cam, 10, for the purpose of causing the cutter to act, regardless of the direction in which the shaft that carries the cam turns, substantially as described.

I also claim in combination with the wire carrier and guides, y, y, a twisting wheel, made and operated substantially as described.

I also claim forming a knot or enlargement on the end of the wire, behind where it is cut off by the cutter, by twisting that portion of it by the means substantially as described, said twist preventing the end from being drawn through the slot of the twisting wheel, as set forth.

PIN-STICKING MACHINE—Cornelius W. Van Vliet, (assignor to the New England Pin Co.), of Winsted, Conn.: I distinctly disclaim the punches or drivers as such, as they have been well-known for half a century.

I also distinctly disclaim the crimping bar as such, they having been patented in England to Miles Berry in the year 1839, and in the United States to J. J. Howe, of Derby, in Connecticut, in the year 1843.

I also distinctly disclaim the sliding separator as such, as that was patented to J. B. Terry, assignee of Thomas W. Harvey, January 3, 1854.

I also distinctly disclaim the channel ways as such, they having long been known and used for arranging screws, pins, &c.

I claim the combination of the series of channel ways with the sliding separator, when constructed and made to operate substantially as described.

Second, I claim the combination of the punches with the sliding separator, when constructed and arranged substantially as set forth.

Third, I claim the combination of the crimping bars, with the punches, sliding separator and channel ways, when constructed and arranged and made to produce the result, substantially as described.

HARROWS—Samuel White, of Penfield, Ohio, assignor to Harlow Herrick, of La Grange, Ohio: I claim the adjustable plates, C, C, in combination with the revolving shafts, E, E', and in connection therewith the spur wheel, K, all operating in the manner and for the purpose specified.

RE-ISSUES.

CARTRIDGES—Gilbert Smith, of Buttermilk Falls, N. Y. Dated June 30, 1857: I claim making the cartridge case, or at least the cylindrical portion thereof, of

some impermeable and elastic substance, such as india rubber or gutta percha, substantially as described, so that it may be expanded laterally by the force of the explosion of the charge, and will contract itself after the explosion by its own inherent property.

SEWING MACHINES—T. J. W. Robertson, of New York City Dated May 22, 1855: I claim first, So arranging and operating a looper, or its equivalent, that it shall derive its motion from the movement of the needle, as described.

I also claim moving the looper up to and away from the needle, substantially in the manner specified.

SEWING MACHINES—James Harrison, Jr., of New York City late of Milwaukee, Wis. Dated April 13th, 1854: I claim clamping the thread of the needle at the downward or advancing movement of the needle by the means that are operated intermittently, substantially as and for the purposes set forth.

I also claim combining with the clamping means, as described, a set screw or its equivalent, for adjusting the clamping means, so that the tightening of the stitch may be regulated to the degree required.

I also claim the combination of the drag bar, T, attached to the shuttle, and containing the eye, J, through which the thread passes therefrom, the opening, K, for throwing the said bar into position to prevent the delivery of the thread from the shuttle, and the adjustable liberating piece, V, for preventing the delivery of the thread from the shuttle, and allowing the desired quantity to be given out.

I also claim the constructing the shuttle in two parts, viz., the shell and cap, of which the latter is inserted into and withdrawn from the former, as described.

DESIGNS.

CAST IRON BEDSTEAD—Philip Tabb, of New York City.

NURSERY BOTTLE—Francis Kern, of Sandwich, Mass.

NOTE—More than ONE-THIRD of the whole number of patents issued last week were secured through the Scientific American Patent Agency. The offices of Messrs. Munn & Co. are situated at 128 Fulton street, New York, and corner of F and Seventh streets, opposite the Patent Office, Washington, D. C. where they will be happy to consult with inventors at all times. No charge for consultation. The principal office is located in New York, where all communications should be sent.

The Mad Stone.

"The Misses King, residing in this city, have in their possession one of these remarkable stones, one of which has effected a multitude of cures of hydrophobia. This mad stone resembles in form the kernel of an almond, is seven-eighths of an inch long, and a quarter of an inch thick; one of the principal sides is convex, and the other flat. Its color approaches jet black, with the appearance of a slight greenish tinge. In hardness, texture and luster it resembles cannel coal. It was brought about fifty years ago by the uncle of the estimable ladies in whose possession it now is, from Hindostan, a country where jugglers not unfrequently perform the feat of suffering themselves to be bitten by venomous reptiles, and immediately thereafter extract the virus by some infallible antidote in their possession."—*Richmond Inquirer*.

We are surprised that a journal of the respectable standing of the one from which we clip the above, should give credence to the old and long since exploded superstition in relation to the "mad stone." All the eastern countries are infested by a vagabond set of adventurers, who claim immunity from labor through the possession of some alleged charm or special supernatural visitation, and in consequence exact *dhukk* from their credulous believers. The theory about this wonderful "mad stone" no doubt had its origin from some such source, and like the traditional superstition of there being luck in an old horseshoe, it is fervently believed in by numerous people, although at variance with common sense. There is nothing in the composition of this wonderful Indian stone mentioned of either a medicinal or curative character, and it will, therefore, no more effect a cure of hydrophobia than the twin hypothesis of tying an eel skin around the wrist will prevent the yellow jaundice.

Recent Patented Improvements.

The following inventions have been patented this week, as will be found by referring to our List of Claims:—

FILING OLD COTTON GIN SAWS—This invention consists in a file which forms one thread of a screw, and so constructed that it files the saw, and at the completion of each revolution of its own axis, feeds the saw round the balance of one tooth; thus all necessity for a feed motion is entirely dispensed with. The file thus constructed is used in connection with two conical files, so that while the depth of the teeth is being cut, the sides of the same are being reduced to the proper shape. This is certainly a very ingenious, simple and per-

fect contrivance and is entirely different from the gin filer patented a few weeks ago by this inventor, A. H. Burdine, of Chulahoma, Miss.

STEAM HAMMER—P. Danver, of New York, has patented a new steam hammer, the improvement of which consists in the employment in combination with that kind of steam hammer whose hammer block or ram forms part of a cylinder, working on a stationary piston, of an external stationary cylinder with a proper arrangement of valves on the top. By this means the steam does not merely serve to elevate the movable cylinder with the ram attached, but its force is also exerted on the top to bring down the ram upon the substance to be hammered, with greater power than its own gravity alone would give. This is effected by admitting the steam between the stationary cylinder and the movable one, the latter acting as a piston to the former.

GAS BURNER—The daily increase in, and extension of use as an illuminating material, renders it highly desirable that every possible means should be taken to economize the light which it is capable of giving, or, in other words, we should ever try to obtain the greatest amount of light from the smallest amount of gas. As a very important step in this direction, Lucien E. Hicks, of New York, has invented a new gas burner, the remarkable simplicity of which, contrasted with its extraordinary results, somewhat astonishes us. It is the common "fish-tail" burner, which, as every one knows, gives an excellent light, with a metal cap placed over it. The cap has a round hole in its top, a little larger than the two holes of the ordinary "fish-tail" and by lighting this, nearly one third more light is obtained than would be, were the cap removed and the "fish-tail" itself lighted. Patents have also been secured in foreign countries.

MACHINE FOR CASTING BULLETS—This improved machine is composed of one or more stationary and one or more swinging mold bars, arranged in pairs and containing the halves of a number of molds combined with a pouring sliding trough or plate, which constitutes at the same time a series of cutters and with proper mechanism for operating the swinging bar or bars and pouring plate or trough. The invention consists in a certain arrangement of the centers of motion of the swinging mold bars, whereby as they swing away from the stationary mold bars to open the molds, the bullets are caused to be detached from the stationary and movable halves of their respective molds. It also consists in the arrangement of the swinging mold bars to swing between center screws so applied as to provide for their adjustment longitudinally in relation to their corresponding bars. J. A. Knight, of St. Louis, Mo., is the inventor.

MACHINERY FOR SPINNING WOOL—J. W. Kennedy and John T. Plummer, of Plainfield, Conn., have invented some improvements in machines of this class, which consist firstly, in a novel combination of tubes and drawing rollers, and means of operating the rollers, by which the process of drawing and twisting can be performed simultaneously, or either of said processes separately, and by which, when the two processes are combined, great convenience is afforded for varying the relative degrees of draft and twist to suit various lengths and qualities of fiber. It also consists in making the whole of that part of a drawing and twisting or spinning frame, which carries the back drawing rollers and the rollers or their equivalents, on which the roving to be drawn and twisted or spun, is contained, adjustable vertically, to enable the distance between the back and front drawing rollers on both sides of a double frame to be regulated according to the length of staple, and yet preserve the proper relation between the back drawing rollers and the roller which contains the roving. The inventors have taken out a patent in England, and assigned part of the invention to John Batchelder, of Lisbon, Conn.