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IMPROVED LOCK.

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O. D. MUNN, S. H. WALES, A. E. BEACH.

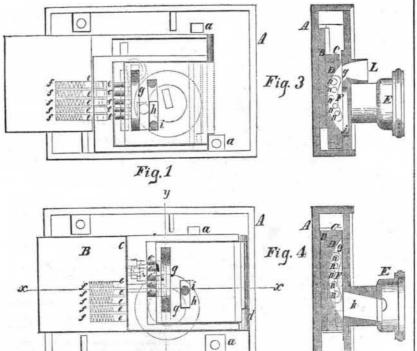
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## Improvement in Locks.

The annexed engravings represent an improvement in locks for fire proof safes, bank vaults, and other doors, for which a patent was granted to Linus Yale, of Newport, Herkimer Co., N. Y., on the 22nd of May last.

Fig. 1 is an internal view of the lock, the casing nearest the eye being removed, and the lock shown in a locked state. Fig. 2 is also an internal view, with the lock represented in an unlocked state. Fig. 3 is a transverse vertical section through fig. 1, and fig. 4 is a transverse vertical section through y y, fig. 2. Similar letters refer to like parts.

The nature of the invention consists in the employment of a sliding plate and frame, constructed, arranged, and operating in connection with pins or rods and a key of peculiar construction, as will be hereafter described. A represents the casing of the luck, and B is the bolt which works or slides between proper stumps, a, in the usual way. The back end of the bolt, B, has a recess or rebate, b, cut in it, leaving a shoulder, c, at one side, and a ledge, d. at the back end of the bolt, between the shoulder, c, and the ledge, d, a frame, C, is fitted. The side of this frame adjoining the shoulder, c, of the bolt has a series of holes made through it, and a corresponding number of holes are made into the shoulder, c, and rods, e e', are fitted in these holes, two rods in each hole, the rods. e, in the holes in the shoulder, c, bearing against spiral springs, f, [see dotted lines, figs. 1 and 2.] The rods, e, in the shoulder, c, are of equal length, but the rods, e', in the side of the frame, C, are of unequal length, and the rods, e, project into the holes in the side of the frame, C, and prevent said frame from being moved upward in the bolt when the lock is in a locked state. In the frame, C, there is fitted a sliding plate, D, which has a curved or segment recess, g. cut in it, and holes are cut through the edge of the plate, D, into the recess, g, in which holes the ends of the rods, e' pass, and project into the recess at unequal distances, as the rods, e', as stated, are of unequal lengths. The plate, D, has also an oblong slot, h, cut through it, in which the bit i, of the knob, E, fits. The knob is provided with a circular plate, j, at its inner end, said plate fitting in a circular recess in the inner surface of one side of the casing, as shown in figs. 3 and 4. The knob also has an oblique opening, k, which passes longitudinally through it, as shown in fig. 4. The plate, D, slides laterally a certain distance in the frame, C, a ledge, l, on the under side of the plate strikes against the side, m, of the frame, C, opposite the side in which the rods, e', are fitted, and determines the length of the vibration of the plate. Through the front side of the casing, there is made a rectangular opening, L, fig. 3. F is the key of segment form corresponding to the recess, g, in the plate, D. The key has a series of holes, n, of different depths in one of its s des, (see figs. 4 and 5.) Suppose the lock to bein a locked state, as shown in fig. 1, it will be seen that the plate, D, and frame, C, are depressed or moved down, and its back end



bears against the stump,  $\alpha$ , and prevents the | side, m, of the frame, C, and the side, m, bolt, B, from being thrown back. The plate, D, and frame, C, therefore must first be raised. The key, F, is inserted in ihe opening, L, and passes down into the recess, g, in the plate, D, the holes, n, in the side of the key being opposite the rods, e'. The depths of the holes, n, vary, as before stated, and correspond to the difference in length of the rods, turned in an opposite direction, and the e'. The key being within the recess, g; the knob, E, is turned from left to right, and the bit, i, first moves the plate, D, towards the shoulder, c, and the key, F, is pressed against the ends of the rods, e', which pass into the holes. n, of the key, F, and the key forces the rods, e, in the shoulder, c, till their ends are flush with the inner surface of the shoulder. The plate, D, and frame, C, may be raised, as the rods, e, are free from the allowed to receive a requisite quantity of holes in the side of the frame. C, and the bit, i, acts upon the upper edge of the slot, h, in the plate, D, and moves said plate upward free from the stump, a, and the bit, i, then acts against the side of the slot, and throws the bolt back as the ledge, *l*, acts against the

C

Fig. 2 y

against the ledge, d. at the back end of the bult, B. When the bolt, B, is thrown back, the recess, g, is in line with the oblique opening, k, in the knob, L, and the key will pass out of the recess, g, and through the opening, k, into the hand. In locking the lock no key is required, the knob being merely plate, D, being moved back to its original position, as shown in fig. 1.

The advantages of the above lock are, that it cannot be picked, as the recess, g, is thrown beyond the opening, L, in the casing before the bolt can be thrown back, so that there is no opportunity for a burglar to tamper with the lock, or take impressions in wax to form a key. There is not sufficient space powder to blow off the lock. The key is convenient to carry in the pocket, and the construction of the lock is extremely simple and economical to manufacture.

More information may be obtained by letter addressed to the patentee.

# VALVES FOR HYDRAULIC RAMS. Fig. 2 Fig. 1 B B

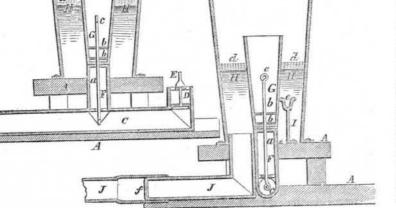
The accompanying engravings are views of an improvement in Hydraulic Water Rams, and other hydraulic engines, for which a patent was granted to Ellis Webb, of Parkersville, Pa., on the 5th of Dec. last.

Fig. 1 is a vertical longitudinal section through a water ram in the line of the pipe which carries the motive column. Fig. 2 is a transverse similar section passing through the discharge pipe. Similar letters refer to like parts.

This invention may be advantageously used in any and all forms of hydraulic engines, where an air chamber is used, in connection with any other motive power, as in a steam or water pump.

The nature of the invention consists, first. in the construction of the valve within the air chamber, viz., so that in rising it shall not rise against the column of water in the chamber. Second, in the method of introducing an oleaginous or other fluid packing on top of the column of water within the air chamber, for preventing the water from carrying out with it the air or gas from the inside of the air chamber. Third, in the check valve in the rising main or charge pipe, for the purpose of preventing the falling back of the column of water in said main and to avoid any irregularity in the beating of the valves in the air chamber or waste pipe.

A is the base upon which the apparatus may be supported ; B is the air or gas chamber, and C the pipe for conveying the motive column of water from the spring head or water source. D is the waste pipe provided with a weighted or self-operating valve, E, for checking and then allowing the water to waste. F is a branch pipe rising up from the pipe, C, immediately underneath the center of the air chamber, and through this pipe the water is forced or let into the air chamber. Over the top of the inlet pipe, F, is arranged a valve, G, which is cylindrical or slightly conical; it is open at top and closed at the bottom, and provided at its seat on the pipe, F, with suitable packing to make it water tight when on its seat. This valve rises and falls perpendicularly, and as it rises, presents an uniform opening to the ingress of the water, and avoids that agitation in the air chamber, which is incident to a flap or hinged valve. To admit of the valve, G, rising and falling in a true line to come uponits seat over the opening in the pipe, F, a guide rod, a, is suitably supported, and passes up some distance, as shown. Guide strips, b b, may also extend across the inside of the value. The top of the rod, a, should have a stop or eye, c, upon it, to prevent the valve at the first beat of the water (when the ram is started) from throwing it too high; after the ram is started the pressure of the air above it, will prevent it from rising too high. H represents the water line in the air chamber, when at or near its highest point. This point is only assumed, however, to show the relative positions of the water, the fluid packing, and the top of the valve, to each other, for by extending further up, the top or crown of the valve, the water and packing may rise higher, never however above the top of the cylinder valve. On top of the water, H, is an oleaginous fluid packing, d, lighter than water, so as to float thereon. This packing is interposed between the water and the air or gas in the top of the chamber, for the purpose of preventing the water from carrying out said air or gas from said chamber, which it effectually accomplishes.



The fact that a ram or other hydraulic engine often becomes, for the time being, perfectly useless from the want of air in the chamber, it having been taken up and car

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# Scientific American.

Jied out by the water, and that this incon-parates the cobs and shellod corn, as described, by theshell-venience is only organized by the opening up edorn falling to the bottom of the tube, H, and passing out venience is only overcome by the opening up of the air chamber, or by the use of a force pump, renders this improvement obvious, for it is found by several month's experience that the air will not escape through the oil packing.

To get this oleaginous packing into the air chamber, without its being liable to be carried out by the first pulsation of the apparatus upon starting it, upon a pedestal, I, extending up some distance into the air chamber, there is an oil cup, e, into which the oil is placed before the ram is started. As the first pulsations of the ram are irregular, and the water that then comes in and goes out is agitated, it would carry out the oil mixed with the water, were it not that as the water gradually rises in the air chamber, it becomes placid, and when it arrives at the oil cup, it takes up the oil, and retains it floating on the surface thereof. There is no danger of the oil being carried out of the chamber, because the operation of the ram is such as to merely raise up the column of water as the water enters, and then the compressed air or gas as gently forces it down again. It is therefore the water which has just entered the air chrmber that is forced out of the discharge main, and not that which lies near the top of the column.

J is the rising main or discharge pipe lead ing from the inside of the air chamber to auy point where it is desirable to carry or use the water. When this rising main, J, is of any considerable length, there is a back lash or re-action motion of the water in said pipe, which, if allowed to extend into the air chamber, would cause irregularity in the working of the ram. To avoid this there is placed in said rising main a check valve, f, which, whilst it allows free escape to the wa ter in the direction in which it is desired to have it go, yet upon the least re-active motion of the water in said main, would close and receive the momentum of the column upon itself, instead of allowing it pass into and through the air chamber, and disarrange or injure the other moving parts of the machine.

The patent embraces three claims, and the application of the improvements are not limited to water rams. [See those claims on page 110, this Vol. Sci. AM.]

More information may be obtained by letter addressed to Mr. Webb, at Parkersville, Chester Co., Pa.



[Reported officially for the Scientific American.] LIST OF PATENT CLAIMS

Issued from the United States Patent Office, FOR THE WEEK ENDING JUNE 26, 1855.

BRIDLE WINKERS-Wm and Wm. F. Boyd, of Water-town. Mass : We claim formly the flying or projecting; putions. a. of the winkers. ., of horse bridles on metallic plates, b, as shown and for the purpose set forth.

[These winkersalways maintain their proper shape, howver much exposed to rain, this the common kind does not. Some horses, also, have a have a habit of rubbing their winkers, and thus putting them us of shape, making them flap down ; this they cannot do with this improved winker.]

WRENCH-C. B. Bristol, of Naugatuck, Conn. : I claim the combination of the disk with the stock and binding pin, when the whole is constructed, arranged, combined, and make to operare, substantially as described.

of a small aperture, and wit nowed by a fan, while the cobs are carried by the screw and forced out of another opening on the floor ]

BRICK AND THE MACHINES-Henry Clayton, of Dorset Square, Eng. Parented in Kingland Dec. 13, 1822; I claim combining with the wires. 222; their sliding screppes or cleaning mechanism made to operate estentially as ex-plained.

I also claim the combination of the accelerating roller, e, and the tilting board, f, with the delivery rollers or their equivalent. MODE OF HANGING WINDOW SASHES-D. N. Dunzack, of

MODE OF HANGING WINDOW SASHES—D. N. JUNZACK, or Salem, Mass. : I claim ntiatching the cords. c, to the lower ends of both sashes, C D, and having said cords passthough pulley. b. attached to the weights, B, the cord at each side of the frame or casing, leing attached to both sashes, said cords passing over pulleys, d, at the center of the frame or casing, subsignitally as shown and described. [The of fect of this arrangement of cords and pulleys with

the sashes, saves two weights, because only one weight is used at each side, instead of two, as is now the case, in balanced window sashes. In a three-story house, having 15 windows, it saves 32 separate weights.]

ICE PITCHERS-Samuel Eakins, of Philadelphia, Pa. : I claim the arrangement of the spout, lid, a.m, and weight, in the manner and for the purpose described.

in the manner and for the purpose described. TIDAL ALARM APPARATUS-M. R. Fletcher, lats of Con-Cord, N. H : I do not claim a series of levers or halmales applied to a b ll, nor a cylinder with tappens or pallets to operate such levers, and causethem to besuccessively rased above and allowed to fall down upon a bell or a series of bells but J claim the improvement by which the bell is rounder both at rise and fall of the tide, meaning to claim the two tripping cama. no, applied to each hammer, in com-bination with the float, F, and weight. G, as applied to the barrel, A, and made to put in revolution the said barrel, as described and thereby cause the tappet cylinder to actuate the hammers si ther during the ruse of fall of the tide, as ex-plained. C a present the

CARFENTER'S MITER AND BEVEL SQUARE-J S Halsied and U. J. Ackerman, of New York City: We claim thecom sunction of the inplement, as shown and described viz. having a ledge of floren, d., Pogict on each ide of the in-ner edge of the bandle, A, the upper and lower end of sa d handle being cut or beveled at an angle of 35 degs, the han-dle being provided with a blade. B whice is attached at right angles to it, and also provided with an adjustable blade, C, as shown, and for the pupp-se as Set forth.

[The use of this instrument is for forming the joints of indow and door casings, and work of a similar characte which now require the use of several tools, such as the square, bevel, trying square, etc. This instrument, con-structed with the parts described in the claim, lays out the joints accurately, so that they can be marked and matched

in a most expeditious manner.]

BALANCE VALVE-Chas. S. Harris, of Holvoke. Mass : I claim the combination of two valve surfaces, ac ing on the claim the combination of two valve surfaces, acting o two, feather edged valve seats, one inside and the other side the casing or box. in such a manner that the pre in one direction on one is compensated by an equal pre-th an opposite direction on the other, so that the valve w111 remain in a state of rest without being affected by any pressure, whether on the inside or outside of the casing or box.

sure, whence on the inside or outside or the casing of tox. RRICK MACHINES-A V. Hough, of Green (astle, Ind.: I claim the sides, if placed at the bottom of a pug mill, I, for the purnove of enabling the operator to regulate the ra-pdiry of the egress of the clay according as it requires to be subjected to the operation of the cylinder for a io-ger or shorter time. I claim placing the shaft, D. with its blades, c, in a hori-zential position within the cylinder deake, U, as shown, whereby the machine is rendered extremely simple, the chaneoperated by the rotation of a single shaft.

[The improvements embraced in these claims relate to re

gulating the quantity of clay to be subjected to the temper ing process. The case, C, receives the clay from the tem pering box, and the blades on the shaft, D, force the clay olds. The improvements render the machine ver

simple.] GAS BURNERS-C H. Johnson, of Boston, Mass : I claim combining the gas distributor and purifier, B. as described, with the burner, so as to operate therewith, substantially as set forth.

COTTON GINS-R. A. L. McCurdy, of Sabine Parish, La.: Iclaim the cylinder screen for the reception of the boll, hulls, &c., and the continued spiral flanged shaft, arranged inside of said cylinder screen, as explained, for the purpos-of working out said boll, huls, &c., as explained, or other-wise suistantially the same, and that will produce the in-tended effect.

HORSE COLLAR BLOCKS-Peter Moodey, of Indianapolis, Ind.; I claim the combination and arrangement of the large, the slides D D, lever, E E, and regulators. G G, or sever-ally the equivalents thereof, so as to secure the stretching, stuffics, and blocking of a no-se collar of leather, clath, in dia rubber, or other material, without removal from the block, in the manner substantially as described.

CHURNS-I-SARC M. Wade, of Clinton, Mich. : I claim the construction and arrangement of the wings or beaters, e. at tached to the lower end of the shaft, D. shats, f, attached to the interside of the case of tub, A, and the brakes, A' tach d to the dish, H, as shown, and for the purpose as forth.

[This is an improvement on the dashers of rotary churns for making the cream rise upward and then fall down with out imparting to it a rotary motion, so that it brings the but er much sooner than if the cream seceived a rotary motion

n the direction of the beater shafe.]

GAS LIGHTER-WM. Wiler and Lucien Moss, of Philadel-phia, Pa: We are aware that the taper tube and turner have heretofore been separately used, and therefore we do not claim them. We claim the arrangement, as described from We chaim them. We chaim the arrangement, as described, of sliding spring, satch, aper, and wreach with the holder, for the purpose net forth.

set forth. SET DATA MACHINES — M. D. Wells, of Morgantown, VA. : I make no claim to the serrated agitator when susceptible of a longitudinal movement only But I claim the serrated aginator adjustable ver-ically within the slor, a, substantially as described, for resulting the disclor g i g capacity of the machine, as set forth. I also claim the supplemental slides, p, arranged and op-enting as described, for enables the aginator to preserve a constant rederrocation under all changes of dimensing capa-city, as specified.

cified. MACHINES FOR CLEANING ORE-B. O. Byron, Mariette a. ; I claim the alreagement of the solid cast iron horizon

Pa : I claim the airargement of the solid cast now non-tal circul ut plate, H, having solid raised arms with upright ends, operating in a ribbed cylinder with the frame, 2, with the center piece, R. for the purpose of scattering the ore on described to the sieve underneath, as and for the purposes described.

being adjusted to any angle, and at the same time bear with considerable force against the inside edge of the side strip of the frame of the shutter or blind, substantially as and for the purposes set forth. [This is a convenient method of adjusting the slats of

blinds. The friction spring bolt, is connected to one slat, and by moving the rod, all the slats can be adjusted to any angle. This insures holding the slats positively in place nd is a most useful improvement.]

Winoow RLINES DOORS, &c.-La Favette Stevens and S. B. Ellithorp. of Elmira, N. Y. : First, we claim the for krd lever with the ferrule on theend, or the fork with a flat shaft at the end, made of either cast or wrought metal, for the purpose set forth. Second, we claim the application of the rods. e., made either of metal, wood, leahler, or their equivalents, as de-scribed, and for the purpose set forth. Third, we claim the grooved style with the fillet attached, for the purpose set forth and described.

WHEELWRIGHT'S GUIDE MANDREL.—Joseph Sykes, of Mercer, Pa : I claim the combination of the mandrel, A. with its permanent and lows journals, B E, and the circu-lar plates. H H, or cones, 1 I: either plates or cones heing used as circum-tances requirte the above parts being arrang-ed as shown and for the purpose as set forth.

MACHINES FOR CUTTING GRAIN, GRASS, & C — Charles Taylor, of McKeesport, Pa : I claim the use of a series of knives or cutters connected with the frame of the machine at the point or angle formed by the connection of each pair of cutters but not connected with the machine at playeries, substantially in the manner and for the purposes specified.

HAND MACHINES FOR PEGGING BOOTS AND SHOES-R-H. Thompson. of Buffalo. N Y: I claim. first, the spring space or stepping instrument. T. constructed, arranged, and operating substantially as described. Second. I c aim the spring feeder, F G, constructed, ar-ranged, and operated by the driver slide, H, substantially as described. Second. ranged an described,

PACENNE FOR STUFFING BOILS, &C.-J. H. Tuck, of Pall Mall, E.g.: I claim the forming of packing for pistons or suffing 'Oxes of steam engines, and for like purposes out of sturfield anywas, so cut as that the thread or warpshall run in a diagonal direction from the line or center of the roll of packing, and rolled into form either in connection with the indis rubber core or other elastic material, or without, as set forth.

STEAN BOILER FURNACE—Thomas Champion, of Wash-ington, D. (): I claim using the exhau-tateam in a closed stack, as a hlower to return the heated gases or products of combustion, with which it commingles back through fines or passages to the fire again and again, to be re-burned, sub-stantially as described.

[An engraving of this furnace will we published in the SCIENTIFIC AMERICAN, next week ]

ATTACHING THE RAKEN'S SEAT TO HARVESTERS—" tephen Hull, of Poughkeepsie, N Y. : I do not claim to be the original inventor of the tranker's seat, nor of any of the differ-ent parts of the machine irrespective of the manner in which they are combined and fastened together. But I claim the placing or fastening of the baker's seat on the bar, e, by means of a bar of iron, or sieel, or any other requiralent device, near the inside of the main frame, in such a manner that the weight of the raker when on his seat, w.ll rest on the bar, sub-tantially as set forth.

CUTTERS OF HARVESTERS—John H. Manny, of Rockford, Ill. : I claim constructive the cutters of harvesters with clearing notches of the form described. I also claim whe combination of clearing hooks with the cutters of harvesters, substantially as set forth.

GUARD FINGERS OF HARVESTERS-John H. Manny, Rockford, Ilt ; f claim forming the finger with an oblig neck, e, ar anged substantially in the manner and for the purpose set forth.

CORN PLANTERS TO BE OPERATED BY HAND-Oren dard, of Busti, N. Y.; I do not claim any of the desc using of push. N. Y. : I do not claim any of the described parts separately or irrespective of the arrangement shown. But I claim the arrangement of the follower or plunger, C, dropping or slicing plates, d. and agitators or distribu-ters formed hythe levers, D' D', provided with cross arms, i, and rods, j, the parts being operated as shown and for the purpose as set forth.

[Several of the parts of this hand corn planter bases ] sed heretofore in other machines, but not arranged in the ame manner, such as the sliding plates and agitators. This implement is very simple. It plants the corn and covers it by an up and down motion of the hand. This kind of im plementis a vast improvement over the old slow method of planting and covering with the hold. One man can now plant six times more in one day, than he could heletofor with the hoe, and besides, he does so in a more correct and workmanlikemanner. He makes straighter rows, and places an exact number of grains in each bill, without taking the troubleto count them for every hill.]

MACHINES FOR MAKING HARNESS FOR LOOMS-enneff of Philadelphia. Pa.: First, I claim the met Semeff, of Philadelphia, Pa.: First, I claim the method of winding the beddles on the shafts, s. by revolving the tube. R, through which the yarn is supped from the yool at it-end, alternately around the shafts and flanges, J2, eurround-ing the stationary cylinders, J, as they pass through soid cylinders, and guiding the same by the followers or guides, S, at its ends, passing through the circular spaces or slots, M, communicating with each other, and deliverin the yarn to the shafts during the revolutions of the tube, from the end of the grooved radial swinging arm, T, turning loosely on its end, as described

end of the grooved r-idial swinging arm, T, turning loosely on its end, as described Second, I claim the combination of the adjustable spring, T3, and radial swinging arm, T, with the tube, R, for re-livering and tempering the tension of the sarn, as described. Third I also claim the combination and arrangement of the bent rods, U, on the rock shaft, V, alternately operated upon by the tension of the yarn, as it is laid on the shafts, a eccentric cam. 4, slotted bar, X. having a motch, 3, on its side and enlarged of its lower end, hub, 400, with the in clined surface, corresponding with the inclined surface of the langed part of the slotted bar, and the horiz stall logi-tudinal and transverse sliding rods, S a; the whole forming the sestential parts of the apparatus, for stopping the ma-thine, upon the breakage of the yarn, is the water for the.

### DESIGN

STOVE PLATES-S. W. Gibbs, of Albany, N. Y. (assigno Skinner & Brothers, of Brownville, N. Y.) [INVENTORS and others may obtain circulars of informa

tion concerning the proper course to secure Letters Patent upon application to this office. Out of the above short list of patents issued last week we recognize the names of ELE VEN of the number whose papers for the application wer prepared at this office.

## Great Trial of Mowing Machines. great trial of mowing machines

tured by T. & S. Hull, of Poughkeepsie, N. Y.; Ketchum's one-house mower, manufactured by Ruggles, Nourse & Mason, Massachusetts, sold by R. L. Allen, of New York City.

The trials were conducted on the afternoons of the 15th and 16th and were of very short duration.

The following is the report of the Committee on the trial:

To the President of the Society of Agriculture of Westchester Co.:- The Committee appointed to decide upon the merits of the mowing machines shown at the exhibition held under the auspices of the Society of Agriculture and Horticulture of Westchester Co., at the farm of A. F. Dickenson, Eeq., of Bedford, on the 15th and 16th of June, 1855, respectfully Report :

That they were very greatly pleased with the performance of every machine exhibited, and can confidently say that they believe any one of them would give satisfaction to the farmers of the country, and when all are so excellent it becomes a matter of considerable difficulty and embarrassment to the Committee to decide which one of them embodies the greatest number of desirable qualities. But as they all possess peculiar excellen-

cies, we will specify them under the following heads:

1st. Operation of the machines on fair ground, driven at first by the same driver and team, and afterward by the exhibitors themselves or under their direction : on this point your Committee find that the machines of Ketchum, Hallenbeck, Manny, and Allen, are of equal excellence.

2nd. The lowest and smoothest cut of each machine: your Committee are of opinion that upon these points there is no marked difference in the four machines just mentioned.

3rd. Trial on rough uncleared bottom: your Committee on this point give the preference to Allen's and Russell's machines.

4th. Evenness of grass as left by the machine for curing : we find that the machines with the iron cutter bar have the preference in this respect.

5th. Freedom of knives from clogging: we are of opinion that the machines of Ketchum, Manny, Hallenbeck, and Russell, on account of the finger caps not reaching back to the finger board, are least likely to clog.

6th. Amount of power required to perform a given amount of work : your Committee think there is but little difference in this respect between the machines of Hallenbeck, Manny, and Allen.

7th. Facilities of transportation from one field to another, and for escaping obstructions in the field : we believe that Manny's machine has advantages over any other in this respect.

8th. Durability and simplicity of construction: we believe that Ketchum's and Allen's are the most durable, and Hallenbeck's the most simply constructed machines exhibited.

9th : Cost of machines : Manny's, made by Adriance, \$120; Manny's. made by Ball, \$115 ; Russell's, \$125 ; Allen's, \$120 ; Ketchum's. \$120 : Ketchum's, made by Hull, \$120 : Hallenbeck's, \$106 ; Forbush's, \$120 ; Ketchum's (1 horse machines,) \$95.

Your Committee in this report have included under the term of Ketchum's machines, that of Hull, and the one-horse mower, manufactured by Ruggles. Nourse & Mason. And also where Manny's is spoken of they mean to include the machine manufactured by Adriance, of Worcester, Mass.

WEATHER STRIPS FOR DOORS-Martin Croke, of New York City: I claim placing or securing a strip or strips, g. of idia rubber within a bar, C, which bar is fitted with an recess, b. in the lower end or edge of the door, B, the bar, C, being rendered adjustable by the set screws, d, substan-tially as shown and for the porpose set forth.

[This is a very simple, cheap, and easily made weather strip. No door fronting the East, South-east, or South, in this region, should be without one, owing to the severe rai storms which come up when the wind blows from such quarters. The claim explains the nature and construction of this invention clearly; its simple adjustable character, by the set screws, renders it very convenient.]

CORN SEELLERS-Abram and C. N Clow, of Port Byron N Y : We do not claim separately either of the parts de N Y : We do not claim separately either of the parts described, for shelling the corn from the cobs, for shelling wheels similarly constructed, have been previously in

Wented. But we claim the tube. H, in combination with the screw. d on the shaft. E, arranged as shown, for discharging the cobs separately from the shelled corn.

[This machine also embraces the self adjusting principle

or ears of various sizes ; the tube, H, is a conical spiral, and the shaft, E. having a screw, is placed within it a little out

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of the center. The peculiar action " this shaft and tube se-

STRAW UUTERS-Henry Peckham, of King's Ferry, N. Y.: I claim one or mole knives, bung on a pivot, in consist nation with a recolving disk, or its ciquicalent, carrying one or more slots, so as to orerate the kulle or knives, substan-tially as described and for the purposes set for b.

FOR STOCK FOR BOMBSHELLS - Abraham Powell, Jr., of Mare Island, Cal : I claim a double cylli der fase stock, so gradaated as to butst shell shot at any required number of seconds, as described.

**RAILROAD CAR BRAKE-Elisha E. Rice, of Hallowell**, Me. : I claim, first, the construction of the brake with one

We: I claim, bisk, the construction of the brake with one Laurised and one plain shoe, in the mathematic for the pur-precessore-field. Second, the combination of the guide bracket, E, extend-ing from the frame of the truck nearly down to the rail, the shoe with its-liding frame, the spring to allow the shoe to vield and the beam for pressing down and raising up the shoe are supported near the rail and the shoe risidly held from any lateral movement whatever, while it is free to rise and fail.

and fall. Third, the weighted drop lever in combination with the shoes, the same being arranged and operating as set forth.

ADJUSTER OF WINDOW BLINIS-A. A. Starr, of New York City: I claim the application of the spring tric ion belt to one of the slats of the shutter or blinds, in such a manner that it shalls... with the slat, and allow of the slat

place in the Town of Bedford, Westchester by Ball, of Hoosick Falls, N. Y.

Co., on the 15th and 16th ult., under the special superintendence of the Agricultural Society of the County. The following machines were entered for trial:

Ketchum's machine, manufactured by How ard & Co., of Buffalo, N. Y., Russell's ma-

chine, manufactured by R. H. Pease, of Albany, N. Y.; Forbush's machine, sold by Griffin & Bros., New York City; Manny's mower, with Adriance's improvement, manufactured at Worcester, Mass.; Manny's mow-

er, sold by L. C. Balls, of Hoosick Fails, N. Y.; Hallenbeck's machine, manufactured at Albany, N. Y.; Allen's machine, of New York City; Ketchum's machine, manufac-

The machine brought upon the ground by Mr Griffing (Forbush's patent,) is not included in this Report as the proprietors, from some cause, were not satisfied that it had a fair trial, not being able to have it in proper order.

R. M. UNDERHILL, JEREMIAH HOWE, SAMU-EL TEED, STEPHEN BARNES, HENRY WOOD,-Committee.

[This report appears very unsatisfactory to us, but perhaps the Committee could not really make a different one. It will be observed that none of the machines manufacrured by Wright, of Chicago, or Hussey, of Baltimore, were competitors in the trial.

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