

Inventions Patented in England by Americans. [Complied from the Commissioners of Patents' Journal.]
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## NEW BOOKS AND PUBLICATIONS

The British Journal Photographic almanac For 1878 is an invaluatains 160 pages, full of useful suggestions and fresh information which every photographer oug
York: Milner \& Rogers.

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ent frades may be obtained from State $\begin{aligned} & \text { drectories or commerclal registers. } \\ & \text { If the invention is meritorious, and if with its utllity it possesses novelty }\end{aligned}$ and is attractive to the eve, so much the more likely it is to flnd a purchaser. Inventors, patentees, and constructors of new and useful machines, imple ments, and contrivances of novelty, can have their inventions illustrated and described in the columns of the Scientific Aalrrican. Civil and me chanical englneering enterprises, such as bridges, docks, founderies, rolling
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## James Barnes, Holyoke, Improved Spindle Bolster.

 in the bottom, in which the spindle is fitted oil tight. A metal cap is arranged in the bolster rall, within which the upper end of the cup, which turns with the spindle, has a bearing. The cap has a tubular extensionfrom the hole through which the spindle passes, fitting into the cup at the from.

Improved Machine for Planing Clapboards. James Atkins, Augusta, Me.-This improvement relates to that class.of machines which plane the side of the clapbrard and joint the thick edge at
the same time, and has for its object the feeding of the boards so that the JoInting of the edge straight will be secured, and the feeding of the boar
and planing of the surface in the most perfect manner will be lngured and planing of the surface in the most perfect manner will be insured. It
consists in an arrangement of heavy feed rolls geared together in pairs, as in ordinary surface planers, but with a series of spurs on each lower roll of the pair, and an adjustable arrangement of the lower rolls for causing them
to correspond exactly to the inclined surface of the bed of the machine, to correspond exactly to the inclined surface of the bed of the machine,

Wm. Schnauffer, Baltimore, Md. -This Invention Blocks.
reotype plate blocks, each division having a pair of support in aided stereotype plate blocks, each division having a pair of supports so as to ena-
ble all to be capable of belng used sep aately or in connection with each ble all to be capable of being used sep "ately or in connection with each
onter.

Henry L. Brower, New Iork city. $\rightarrow$ This invention
Ight, portable, and ornamentalalarm or call bell, so contrived that the de Vices for restraining or holding the clock mechanism (used for actuatin the bell hammer) In check will be caused to release the sald mechanism an knob be lifted or pulled, or turned to the a burglar alarm by attaching small threads or cords to the knob, and arranging sadd threads so that the opening of a window or door, or the pass Ing through an open door or window by a person will, by his coming
againgt the cords or threads, pull the knob or turn it, and thereby set the alarm in motion; also, for a flre alarm by having welghts or springs, let go alarm in motion; also, for afire alarm by having wetghts or springs, let go
by the burning of the threads to pull or turn the knob and liberate the sounding mechanism.

## Improved Tool for Laying Tile.

George W.Nevill, Richmona, va.- Mis
of two adjustably connected tubes on which the tiles are held firmlywhile of two adjustably connected tubes on which the tiles are held firmlywhile
being carried into the ditch, and irom which they may be then readily detached. The advanases of this tool are that the operator is enablecuto lay the sectional tiles by means of a level, or otherwise, at a regularand

Improved Sewing Machine Table.
James W. Cheney, Detrolt, Mich.-This invention has for its object to furnish a simple and effective method of connecting the cover of a sewing
machine table to the edge of the same for forming an extension thereof machine table to the edge of the same for forming an extension thereof
when not used as a cover for the operative mechanism. The invention consists primarily in the employment of a hooked or curved plate applied
to the under side of the cover and interlocking with a slotted plate secured to the edge of the table for forming a detachable fastening device which will cause the cover and table to be flush or even with each other when ar
ranged in position. The invention also conslsts in the provision of a hinge ranged in position. The invention also consists in the provision of a hinged
supporting arm applied to a pendent bracket secured to the table, for malntaining the cover In its proper position When used as an extension leaf.
The invention also consists in combining with the hinged supporting arm and bracket a pair of spring jaws for securing the hinged arm when it i turnedinto a vertical or inoperative position.

## Improved Railroad Train Indicator.

Samuel W . Hemenway, Lansing, Iowa.-Thisinvention consists of one or ing from the end and the time the trains are due at the stations marked op posite them; also blocks representing cars and a screw, with each way, for
actuating them. The screw is worked by a clock, so that a block being actuating them. The screw is worked by a clock, so that a block being
put on the track at the time for the starting of a real train will show to the eye the position of the train on the rallway at any time during the trip. Improved Plow.
James R. Nichols, Bastrop, Texas. $\rightarrow$ The Inventi

## ter havinga bend at one end, sharpened at the other atis in a plow cut

 ifferent points, to adapt it to be used with a sweep or plow.
## Improved Candlestick.

Charles H. Doughty, Newburgh, N. Y.-This invention consists of an open
socket for the candle formed by the vertical edges of four thin plates radiating from a common center, but sufficiently distant from the center that in pressing the canale down between them, they will cut or press into the
sides and hold it fast. Three or more of the plates maybe use sides and hold 1 it fast. Three or more of the plates maybe used. At the
bottom of the socket the said plates extend to the center. The object is to pro ide a candlestick which cannot fill up in the socket by melted tallow
or wax, and by which the lifting of a pusher to expose the light 18 avolded when the candle is
Improved Paint Brush.
Phillp Wagner, New York city.-This nvention relates to a new exten-
sion brush case. The top or bridge of the brush hol der, which is usually sionbrush case. The top or bridge of the brush hol ter, which 1s usuanly
soldered flat upon the upper edge of the face plates, Is, in this invention, provided with side flanges. The bridge thus made is sprung over the top of the case and fastened by solder, and will then and by the ald of tis flanges
be held firm and secure. The lower part of the case is made movable up and down, and can be fastened by a screw at sultable hight. This silde or sleeve is made of metal or other hard material, and will, when set down,
shorten the working part of the hairs, or lengthen them when moved up. shorten the working part of the hairs, or lengthen them when moved up.
The paint or varnish will be arrested by the lower edge of the extension,
and cannot enter within such extension. For thickervarnish or paint the and cannot enter within such extension. For thickervarnish or paint the
sleeve is moved down; for thinner material it is set up, and also when th

## Improved Grain Binding Harvester.

Charles F. Goddard, St. Ansgar, Iowa.-This invention has for its objec the grain, rake itinto gavels, and bind it. In using the machine one end of the straw band is attached to an arm. The other end of the band is passed around a hook and securedin the spring jaw in the end of the short arm of a crosshead, placing the band being all the attendant has to do. As the
rake moves forward it pushes the gavel over the arm and raises said arm inrake moves forward it pushes the gavel over the arm and raises said arm inband. As the crosshead completes its movement its long arm strikes and pushes back the hook, which catches the end of the band and draws it
through sald band. At the same time the spring jaws of the crossheads through sald band. At the same time the spring jaws of the crosshead
strikeagainst stops, which open said jaws and release the bands, and the strikeagainst stops, which open said jaws and release the bands, and the
bound bundle drops to the ground. As this operation is completed the lever sllps from a pin and the spring draws it back, which turns the bin
device baek into its former position ready to recelve another band.

Improved Sulky Plow.
Williamough, Orion, Till.-This invention consists in means for raising,
lowering, and holding, the frame which sustains the plows, and thereby graduating the depth of furrow which is to be cut by the latter. The de vice can thus be used in almost every kind of sinl. By connecting both
endis of the plow beamwith the lever, it is raised and lowerealin a level position, or nearly so, meving the plow up and down, which is
than drawing it diagonally through the soil, as is usually done.

## Improved Butter Bucket.

John F. Dumont, Kansas City. Mo.-This invention consists in forming an
air tight butter bucket in three easily detachable parts so that it can be speedily subdivided and all portions thereof nicely and thoroughly cleane also in the particular mode of
locking and unlocking them.

Improved Ditching Machine.
George w. vehicle to curn in a smallcircle at the end of in means fo becomes necessary, and aftrer cutting one layer of earth to return nand cut
another; also In means for enabling the flanged soll-carrylng wheel to adjust itself both laterally ana verrically in an easy and non-frictional man-
ner to the inside of ditch; and finally, in means for supporting the ditchner to the inside of ditch; and finally, in means for supporting the ditch
ing wheel frame in its true position while the front axle may move inde. ing wheely rame ind vice versa.

## Improved Substitute for India Rubber.

Dr. Eibert H. Rogers, Tuscaloosa, Ala.-This invention consists in the process of obtainIngrubber pulp from bamboo and other berries by frst
expressing the juice, secondly, drying the hull, pulp, and seed in a mass thirdly, disintegrating said pulp, hull, and seed by trituration, and finally
Improved Furnace for Melting Brass and other Metals. IraD. Bush,Detroit, Mich.-This invention consists of a rotating grate
frame, constructed and arranged in a furnace. The furnace is supported in the frame on trunnions. The improved grate frame or plate is confined to the under side of the furnace bottom on a central plvot and pin. There are three, more or less, air ports in the bottom of the furnace
one for each space or compartment in the furnace between the partitions. Each of these apertures is provided with a removable grate, elther attached
to or cast with the rotating grate plate or frame. By turning the plate the to or cast with the rotating grate plate or frame. By turning the plate the
grates arereadily removed froan the air ports, which allows cinders and re fuse to be discharged during the process of melting.

Improved Railway Dust Preventer.
John Wellby, Frederickton, Canada.-This invention consists in a dut shifeld for cars, carriages, and other vehtcles. It is a frame made with close
triangular enis, which is designed to be secured to the lower part of triangular ends, which is designed to be secured to the lower part of
the car body, and which should project downward so as to be as close to the ground as practicable. To the upper parts of the ends of the frame are pivoted the journals of a roller, to which is attached one edge of a can-
vas screen, the lower edge of which, when unrolled, is designed to be secured to the lower bar of the frame, so that by detaching the lower edge of the sereen orblindit may be rolled upon the roller to give convenient
access to the wheels when desired. The end screens consist of a frame covered permanently with a cover of wood or thin sheet iron, and should rojectso that the end screens of adjacent cars may come as near each ticable without dangerof betng broken.

Improved Bread Worker.
Joseph H. Balderstan, Cobra, Ma. -This he bread, mixed to the proper consistency for working or kneading, is placed in the closed end of a box. The lever is then moved up and down
andactuatesarmsto the ends of which balls are fastened. The eflect of this is tocause the dough to revolve toward sald balls, so thatby continuing the operation a short tlme the dough will be thoroughlyworked.
Improved Apparatus for Loading and Unloading Hay.
George W. Long, Delaware Center, Iowa.-This Invention has for its, ect to furnish an improved device for unloading hay, corn in the ear, etc.; it is simple in construction and is said to be effectiveln use. The Invention consists in the combination of the siling, the ropes attached to it, the block,
crank shaft, lock and trip latch and trip rope with each other. Two timnumb hay rack the timbers may hang down at its sides. To one of the timbers is
suitably attached the end of a rope, the other end of which is left free. To sultably attached the end of a rope, the other end of which 1s left free. To
the other timber, at equal distances from its center, are attached the ends of another rope, upon the center of which is formed a loop or eye to rope passes through hales to the pulley upon the holsting rope. The same is formed a large hole or opening. across which extends a shaft to one end of which is attached a crank. A catch and lever is arranged to hold the
crank in any desired position. In using the device, a sllng is extended upon the wagon rack, the load is bullt upon it, and the loaded wagon is drawn pon the barn floor, to the side of the stack, or to any other place where
the load is to be unloaded. The end of the rope frist mentioned is then attached to the shaft on the block to wind the rope upon the shaft. Whe he slinghas been drawn sufficiently tight about the load the latch is adjusted to catch upon the crank to lock it, and the hosting rope is draw pon to raise the load and carry it to the desired place. When the load is
brought over the place where it is to be deposited, the trip rope is drawn upon to withdraw the latch and release the crank and staft, allowing the rope to unwind and the load to drop.
John Boyle, New York city.-The Anvention consists in the mode applying tension rods to awnings. To the ends of the main rod are attache he sockets or couplings to which the brackets are fastened. To the sockets tralning rods, which are passed through the eyes, are drawn taut by auts screwed upon one or boih their ends. Bridges are used, according to he length of the rod, and are made with two a rms, through the outer ends Whichare formed holes for the passage of the straining rods. The eyes od to resist the downward pressure, and the other upon the inner stide of od to resist the downward pressure, and

Improved Bed Bottom.
city.-This invention relate the construction of spla attached by straps to the slats of the frame. Each spring has two fasten-
ings, one on each s:de of the slat. By making the slats of the proper width distributed unfformly and so that each may bear its number of spring of the welght. The springs are held at top and bottom by twine or cord rranged in the usual manner, with a border band of rattan or wire sur ounding them and forming the boundary of the bottom. The bottom is cased in strong cloth tw ith cottonbattingin the sides.

## Improved Oscillating Chair.

William T. Doremus, 266 Canal Street, New York city.-This invention has for its object to furnish an improved chair, which shall be so constructed as
to yleld to the welght of the sitter as he sits down and leans back, thus elleving him from encountering the rigid res an ordnary chair. Bars are placed at elther side of the chair, the upper ar and into the said seat. The lower part of each bar passes down through laced between the Hon, when a person sits down npon the chalr his welght compresses the springs, and at the same time slightly inclines the chairseat to the rearware which Incllnation may be increased by leaning back heavily against the chair back. The front part of the pedestal is provided with a stop to
recelve the forward part of the seat when sald seatis allowed to come into recelve the forward pa
its ordinary position.
Improved Oil Still.
Emill Schalk, New Yorkcity.-The retort or still, in which the ofl is to be and top, spaces at the sides for the oil to be distlled ; through this passage are arrangedvertical tubes as close together as will best promote the direct application of the heat which passes through the still to the oll, which cir-
culates through the tubes, and not obstruct the draft. The oil enters the lowerchamberat the pipe where the heat is lowest and the residue escapes
from the upper chamber where the heat is greatest. The tubes, belng vertifrom the upper chamber where the heat 1s greatest. The tubes, belng vert1-
cal und having a large chamber below, will not be obstructed by the accul nulation of impuritie

Improved Torpedo.
Charles Nelson, East New York, N. Y.-This invention consists of a tor pedo in which the fulminate is separated from the powder, gravel, and other
filling, and inclosed in a paper sack and fixed on the center of the paper wrapper. It is thus placed at the bottom part of the completed torpedo. It iseither inclosedin one wrapper, or in a package of two or more plies of strong paper. The fulminate is placed at the bottom, and the whole,
including an exterior thin fancy colored paper, is foldedoverthe powder Including an exterior thin fancy colored paper, is folded overthe powder
and secured by twisting together and gumming the $t w i s t e d$ parts. The object is to guard against explosion by concussion of the sides of the torpedo ject to concussion, as thetorpedoes now made do to such extent that if on in a mass or package explodes the whole will be fired.

Improved Sofa Bedstead.
James K. Stockton, New York city. $\llcorner$ This invention relates to a nem*oofa bed, and has for its object to permit the use of shortframes and cushions for such purpose. The seat of the sofa, having projecting pins or trunnions, is
pivoted thereby to the frame so that it can be entrely revolved. To the front of the seat is hinged a cushoned frame of similar extent, which in the sofa is folded under the seat. To the back of the cushioned frame is hinged
the sofa back, which is cuishioned on both sides. A plate of wood is placed Into the back of the sofa, projecting outwardly and forming a recess for the admission of the cushlom. When the sofa is to be transformed into a bed
the back is carried forward, the seat completely revolved on its pivots and the cushion thereby brought forward of the seat. Legs.aliding in recesse of and plvoted to projecting arms fastened to $T$-shaped pleces, are draw of and plvoted to projecting arms fastened to T-shapea pleces, are drawn
,out and turned down for the suport of the cushlon. A foot board is folded up till it rests on the projecting extenaton of legs. Clutches, applied to the sides of the cushion, are turnedup and hold the foot board firmiy pressed against the legs, stiffening them and producing a stable support to the e
cushions. In this manner a bed is completed whose length is obtained by cushions. In this manner a bed is comp
the successions of the several cushions.

