
bow bridge, from the nook on the shore of the lake. CENTRAL PARK, NEW YORK CITY.
It is not very many years since the central portion of Manhattan Island was a wilderness of swamp, relieved only by great masses of arid and jagged rock. The inhabitants, principally emigrants from the
Emeraldisle,lived in a state of primeval simplicity and dirt, in ricketty sheds and cab. ins, which at once did duty as dwelling houses and as stables for an occasional cow and innumerable pigs and goats. A more dreary and desolate neighborhood it would be difficult to find; pools of stagnant water bred myriads of mosquitoes, miasmatic diseases raged unchecked, vegetation was loor and scanty; in short, the ultimate disposal of so large

drinking fountain and bird dage
ing material from which it was decided to produce a park which should rival the celebrated pleasure grounds of England, and overtop in magnificence the Parisian Bois de Boulogne. Engineers were engaged, the ground was surveyed, and the itinerant population itinerant population driven from its fast-
nesses. For years an nesses. For years an
army of laborers made army of laborers made
the great area, of 862 acres, a scene of continuouslabor. Bogs and marshes were drained, beautifullakes replaced fetid pools, substantial roads took the place of muddy cow paths, and gracaful bridges were thrown across precipitous ravines. Then fol lowed the landscape gardener, and the dry places became carpeted
with velvety turf, the bare rocks covered with creeping vegetation walks were laid out trees and shrubs innu merable planted, rustic arbors of exquisite de sign built in romantic spots, and, finally, under the hands of science and of art, the value less and unhealthy waste became transformed into the most beautiful, if not the largest public pleasure garden in the world.
For the benefit of our many readers who have never visited Central Park, we present herewith a few engravings from sketches of some of its loveliest portions. Entrance can be had at any of the numerous gates-so called by courtesy, for no artual portals are yet in existence-and we can follow our own fancy or the directions of one of the gray coated keepers in wending our way to the great central avenue or Mall. Here, leading in a straight line for a quarter of a mile, is a broad footpath, lined with rows of tall elms and a smooth lawn. On Saturdays, during ummer, an excellent band plays for severa hours in the afternoon in a beautiful pavilion erected for the purpose, and thousands of people gather to listen. Leading from the Mall to the Lake Level is the Terrace, a fine architec tural work of Nova Scotia stone, covered with elaborate
 main Drive, the ceiling of Rustic seat and fountain which is inlaid with tile in musaic work, the design and coloring beautiful in effect, and thence we step out on the Esplanade, a broad plateau on the shore of the lake. In the center is a great fountain, the bronze g which has not yet been placed in position. construction, and covers twenty acres; and to see its beauties we must avail to see its b the wumerous gaily painted of one of the numerous gaily painted boats which glide over its surface. Now we pass a bold jutting rock which changes into a grassy slope, spreading far up the lill, then a clump of willows, the over hanging bows of which extend far over the water; then we shoot by an ornamental boat house, withits steps leading down to the water's edge; perhaps we glide in tamely crowd of swans and catch bits of bread that we may throw to them. Then as we skirt the shore we catch glimpses of romantic arbors half buried in the trees, and just before our row is over we run
under Echo Bridge, the concave form of which indefinitel multiplies every sound
The finest piece of architecture in the Park-we may add one of the most elaborate of its kind in existence-is Bow
 Bridge, shown in our larger illus tration. It is made entirely of iron, and the span, in addition to being quit long, is of the beautiful bow shape indicated by the name. We pass over it to get to the Rambl where the paths are call curves and crooks, and the spling. intricate wind ings, which we can follow, and retrace again and again finding new beauties each time. There are vine covered ar kors, from which occasional glimpses may be had of the lake
 vedere, now a granite and not

THE SUMMER HOUSE.

a very prepossessing structure, which serves as an obser vatory. A splendid view can be gained, from its upper bal cony, over the great Croton basins, the city and far across the Hudson and East Rivers to the shores of New Jersey and Long Island. Near the Fifth avenue entrance of the Park is the old Arsenal, but now the Museum. Here is a very fine zoological collection-which is at present in temporary quarters-comprising many valuable and rare living animals. Within the building proper are fine entomologica collections, and a series of excellently prepared stuffed animals. The natural history of the United States may be well studied from the above, as well as a number of fossil remains from which plaster models of prehistoric animals will sometime be completed.

There are several fine statues at present in the Park, and it is expected that before long ot
be added.


ECHO BRIDGE.

Shakespeare: monument is at the end of the wall, an close by it is a splendid group of an Indian hunter and his dog. There are also statues of Morse and busts of Schiller, Burns, and Humboldt.
Work is still in progress, and every year finds new beauties added to New York's great breathing place. That it is appreciated by the people, the crowds which throng every pathway on Sundays testify, suggesting indeed the thought
that even this large expanse will ere long become too small, that even this large expanse will ere long become too small,
and another vast park will be needed to supply the want of and another vast park will be needed to supply the want of our constantly increasing population.

## NEW BOOKS AND PUBLICATIONS

Castle's Universal Interest Tablets. New York: Root,
Anthony \& Co., 62 Liberty Street. Price $\$ 2$. This is a neat leather case, containing three cards with interest tables
printed on them. By manipulating the cards according to the printed directions, the interest on any sum for any length of time can be easily ascertained. Our book keeper has tested the tables, and he pronounces the Report of Progress of the Geological Survey General Report of the Commissioner of Agricultur the Year 1871, and the Half Year ending June 30, 1872 Montreal: La Minerve
The subjects of these $t$ wointeresting and valuable reports are too large $t$ compilation of the books shows zealous and thorough research on the thar of the offlcers of the Geological Survey and the Commissioner of Agricul
ture. Indications of thriving industries and p ture. Indications of thriving industries and a prosperous population are to
be found throughout the agricultural report and the cry is for more labor ers, especially for farm hands.
Messrs. A. D. Mellick, Jr., \& Brother, 6 Pine Street, New York city, have published an excellent book on the railway enterprises and real estate locating near New York.
Flower Object Lessons, or First Lessons. in Botany: A
Familiar Description of a few Flowers. From the French of M. Emm. Le Maout. New York: William J. Read 116 Fulton Street.
A little work likely to be useful to the teacher and dateresting to the
pupil. It is well suited for use in the well known kindergarten systen pupil. It is well suited for use in the well known kindergarten system, and
will, we hope, help to popularize the knowledge of one of the most beautwill, we hope, help to popularize the k
ful and accessible of scientific studies.
The Mystery of Metropolisville. By Edward Fpgles ton, author of the "Hoosier Schoolmaster," "The End of
the World," etc. New York: Orange Judd \& Co., 245 Broadway.
Here we have another pleasant, racy story or western life, from a write Who is thoroughly acquainted with the rough, hearty genuineness and the
eccentricities of the oorder life in our States. Mr. Eggleston's fame as an original thinker and story teller was made by his first book : and the las work from his pen morethan sustalns his reputation. This story was writ ten for Hearth and Home, wherein it frst appeared.
Detail, Cottage, and Constructive Architecture, con taining Seventy-five Plates of Perspectives, Elevations,
and Plans for Houses, Villas, Cottages and Country
Houses. Published under the direction of A. J. Bicknell. Houses. Published under the direction of A. J. Bicknell.
Price $\$ 10$. New York: A. J. Bicknell \& Co., 27 War-
ren Street. ren Street.
This is a handsome and elaborate volume, containing some hundreds o
designs for houses in all styles, with drawings The value of this ocok to persons intending to build, and to country build ers in places where architectural talent is not readily available, will be well understood from its title; and the engraving and printing are such as to make it an ornamental volume, worthy of the admirable examples with
which the book is flled.

## Inventions Patented in England by Americans.

 [Compiled from the Commissioners of Patents' Journal.]From March 21 to March 27, 1873, inclusive. From March 21 to March 27,1873 , incl
Boot Prgaing Machive.-J. H. Read, Boston, Mass,
Bung and Bung Inserter.-L. Van Laak, J, Gillesp
Bung and Bung inserter.-L. Van Laak, J. Gillespie, San Francisco, Cal Making Hose.-E. P. Richardeon, Laurence, Mass

 Nerdle Threading Devici.-G. P. Farmer, By
Prassure Gage.-J. W. Stiles, New York city.
Prissure Gage.-J. W. Stiles, New York city.
Shing Miters, bec.J. H. Carpenter, Paterson, N.J.
Sawing Miters, bTC.-J. H. Carpenter, Paterson, N.J.
Stram Boiler.-G. H. Babcock, Plainfleld, N.J., S. Wllcox, Brooklyn, N. Y.
Triating Fiber.-W. Shedd, Boston, Mass.

## Gernt Guericam aud foreign equtnts.

## Ellen D. Anderson, Frederick, Md.-The Favention

telescopic lock bolt with two notched brackets, arranged one onembinin side, rear, and bottoon end of each shutter, whereby the shutters may not only be securely locked together against the weather strip, or back against
the house, but may be " bowed" at various intermediate puints. to afford a the house, but may be "bowed" at various intermediate points. to affor
larger or smaller opening and a greater or less degree of light and air.

Impioved Explosive Cartridge Pile Driver.
of relatively constructing the hammer andanvil of that class of pile mode In which a cartridge is employed and wherein powder is caused to explode and be convertcd into a highly exparsible gas between the anvil and the
hammer. The resistance of the latter enables it to drive the former with hammer. The resistance of the latter enables it to drive the former with
great force against the pile. By the present construction of hammer and great force against the pile. By the present construction of hammer and
anvil, much of the expansive power escapes and is lost unless the cartridge chamber is made very deep, while this increase in the depth causes the chamber to heat very rapidly, to of ten set fre to the cartridge, and thus to
cause the hammer to stick in the anvil. The present invention entirely ob cause the hammer to stick in the anvil. The present invention entirely ob-
viates both these evils, as the gases cannot expand except in the direction of and against the hammer and anvil, while the cartridge chamber can be
made so shallow as not to heat the chamber sufficiently to set fre to the cartridge.
John $\mathbf{W}$ Improved Roll for Rolling Railway Rails. structing rolls so as to shape a compound railion melate of to mo medes of conlocked together by a groove on one, into which the upper edge of the other
fits. The invention consists in the mode of fits. The invention consists in the mode of constructing the rollgrooves
so that the larger section of rail is brought into preliminary shape and subsequently recessed on theunder side of head to receive the upper edge of the lesser section.

Improved Pea Vine and Corn Stalk Gatherer. adapted especially for gathering pea vines, corn stalks, and other plants cultivated on ridges, and it consists in the provision of a revolving rake head carrying a series of teeths of unequal lengths, which are so arranged
in relation to each other that the teeth operate or rake both in the furrows and on the ridges, a hinged check plate belng provided or combtned with
the rake for holding the teeth stationary untll a load is collected by the the rake for holding the teeth stationary until a load is collected by the
same, when, through the medium of a hand lever and conneeting rods, the
charge the load.
EdwardTurner, Greensburgh, Pa, Improved Nut Lock.
evices used to prevent nuts from being turned on theles to that class of ing or jolting, and thus allowing the latter to, be loosened. The invention sufficiently to allow a nut to be applied to or removed from its bolt, and of such a diameter between two opposite points of the curved part of their
Ircumferences that the said curved part and the corners of the nut will ro ircumferences that the said curved part and the corners of the nut will ro

Improved Lamp Shade.
Wm. Simons, Charleston, S. C. - This Invention consists of a shade formed of two llke parts, approximating an ellipse in shape, and united at the end
so as to have the usual conical truncated form, and also leave notches in top or upper edge which adapts it to the fanshaped flame of a lamp or gas urner. Thetwo parts may be readily detached to adapt the shadef

Improved Medicine Chest.:
Wm. H. Catler, Buffalo, N. Y.-The object of the inver
n improved ane for hat known as carbolate of fodine) and instruments for (more espectally and to this end an oblong rectangular wooden block is bored longitudialling instrument. a thumbplece, and with fianges fitting in grooves formed in the longe ides of the block, at the open end thereof. The case is cheaper and mor urable than paper boxes heretofore used for the same purpose, and isca
able of resisting pressure or blows, and also dampness.

Improved Chair.
net R. Chalk, Mt. Wa
gton, Md.-The inven ion sensigts in improving the ordinary mode of applying spring backs to eive a spring back, and so that the bacs may berigidly held at any point o djustm

Improved Carpet Stretcher.
David White, Normal, ill.-This invention consists in applying a swivele button and sustaining yoke to the jofnted strips so as to lock the stretcher
a any desired position and thereby enable the same person to do the stretchag and tacking down.

Improved Umbrella Holder.
Abraham Oberndorf, Jr., Baltimore CIty, Md.-The Invention consists in easily and conveniently hung to the vest or other part of the clothing. Improved Brush Socket.
Philipp Wagner, Morrisania, N. Y.-The invention relates to the con-
struction of a bridge for sheet metal sockets of brushes (mainly paint struction of a bridge for sheet metal sockets of brushes (mainly paint
brushes), so as to secure strength and cheapness in the manufacture. The Invention consists in the employment of ribs or corrugations on the stdd
edges whose subjacent concavtities recelve the side edges of the socket.

Buoying and Stopping Leaks.
Hubbard, ohio.-The invention con
John W. Cooper, Hubbard, ohio.-The invention consists in a flat, flexible, and inflatable bag secured to the gunwale, passing down the side of the
vessel, up through certain tubes, and connecting with the deck, whereby said bag may be adjusted to cover a breach at any point in the side of the

## Enoch Taylor, Memphis, Tenn.- Chis invention con

Enoch Taylor, Memphis, Tenn.-This invention consists in brushes nxed each stalk with which the rotary brush comes in contact will be deprived of the ripe cotton. It also consists in the arrangement of mechanism for he side the cylinderfrom the wheels and in guides that reach cut from he side and in advance of
talks up to the brushes.

Combined Adjustable Pinchers and Grappling Tool. Simon B. Dexter, Mason city, Iowa.-This invention relates to a tool or astrument which maybe used as a wrench, pinchers, or grapple for radsing
or carrying weights. The faws, by means of a sertes of holes, are made ad ustable to adapt them to articles of different size. A shank rod is con nected by means of a fork on the end thereof, wit:i the fulcrum pin of the
pinchers. This rod extends back and passes into the handle, and on it is placed the wedge shaped slide consststing of two rods widch pass through eyes at the ends of the pincher handles. At the back end of this sllde is a
screw which allows the handle or other appliance to be frmly attached to the slide. As this slide is moved back and forth on the rod, it will be seen that the handles of the pinchers and the Jaws will be made to move nearer
to or further from each other, the variations in this movement depending upon the angle of the slide rods with the shank rod. When any article secured bet ween the Jaws, it is pinched or griped by pulling upon the silde or handle, and is loosened therefrom by a contrary movement. This feature adapts the tool for grappling for articles in wells or under water, as well as
for carrying heavy articles or hot pleces of fron in founderies and similar for carr.
places.

## Improved Composition Sidewalk. ard, Batavia, N. Y.-This invention has

Charles H. Howard, Batavia, Y.-This invention has for tts object to construct a sidewalk or pavement without having to haul loads of stones, bricks, gravel, or other matter to the locality of the proposed walk o
pavement, which matter is usually embodied in the composition of walks and used in place of the soll originally there contained. After the grade has been established, the earth to a depth of three or four inches and to the
width of the proposed walk is thoroughly worked over and made very fine. A quantity of magnesia and carbonate of baryta, mixed together, varying in proportion with the nature of the soll found on the ground, is in troduced and mixed with the carth. After the chemicals above mentioned have bee
properly incorporated in the soll, silicate of soda (soluble glass) is added, and the earth then replaced in its bed and properly smoothed on the sur
face. When the maso is almost dry, it should be covered over with a cos of chalk and magnesia mixed in water glass. This walk is cheaper tha stone, will not rot like planks, and can be very rapidly made.
Phylander Daniels, Jackson CIty, Mich.-The object of this invention of furnish an artificial stone or pavement which combines strength and du ribility, and offers, by its fireproof qualities, protection against the dange of a solution of glue, isinglass, soluble glass, and concentrated ley, which Is applied to a misture of sand, Portland cement, and pommeled glass.
This mixture is well dampened with the solution till it forms a pasty mass of the consistency of mortar; and may be formed and well tamped int molds, where it willsoon harden, to be taken out and exposed to the air $t$ t
dry. It may also be laid in the form of a fireproof pavement, or any othe suitable purpose.
Improved Harvester.
lavention beloggs to the mowers, and as front cut or rear cut machines. To the outer end of the reel when the machine is adjusted as a reaper. The matn driving wheel re volves loosely yupon the end of the axle and is made to receive the master
wheel which is attached to the axle. The master wheel is made with an inwardly projecting rim, upon the outer surface of which are formednotches upon which take hold spring pawls, attached to the inner side of the rim of
thedrive wheel. Upon the Innersurface of the rim of the master wheel are formed teeth, into which mesh the teeth of the pinion wheel placed upon the end of the shaft. In the outer side of the gear wheel is formed a slot to recetve a cross head formed upon the end of a shaft so that the said gear
wheel may carry the said shaft with it in its revolution. By this construction, by moving the gearwheel inward suffclently to remove it from the wheel is moved back and forth upon the shaft to throw it out of and Into a position that it may be conveniently reached and operated by the drive
with his foot. The shaft extends across the frame, revolves in bearings at
teeth of which mesh int othe teeth of the small gear wheel attached to the riving shafl. Another shaflis placed a littie below andin the rear of the axle, and to its end is attached a balance wheel which serves also as a crank
wheel for the bar that drives the sickle bar. The shoe, to which the inner end of the finger baris detachably bolted, and the various parts connected with it, can be readily adjusted to adapt the machine for a front or rear cut. Improved Clasp Button.
Andrew Flatley, Brooklyn, N. Y. -This invention has for its object to furnish an improved detachable clasp button for connecting the ends of col-
lars. The fnvention consists In a clasp button provided with spiral wire fasteners upon the inner side of its two parts to adapt it to be conveniently attached and detached.

Improved Car Coupling.
a improvement on the patent granted, to the same inventor, March 5 , 1872 ; and consists in a
drawhead having a rear piece backwardly inclined on its top surface to recelve and hold the coupling rod when not in use

Improved Bag Tie.
ad, and Daniel H . Rhod
Improved Bag Tie.
John Bannihr,Hempstead, and Daniel H. Rhodes, Baldwinsville, N. Y.Thisinvention consists of two parallel plates connected together along one
edge. A lever is pivoted to the connecting plate at one endand fastened to it at the other end by a hook. TLe string is fastened by passing it through a hole in each of the parallel plates above the connecting plate and under the lever. The latter is then pressed down upon the cord, drawing it down
between the plates and wedging if fast, the lever being then fastened by the the lever
between
hook.

Improved Die for Forging Hoe Plates.
Lovell T. Richardson, Auburn, N. Y.-This Invention relates to dies which are used in steam, water, or other power hammers for plating planters' hoes
from the blanks before they are rolled out. Part of the face of the lower die is the arc of a circle transversely, and one fourth of its length is a flat or plane surfare. The face of

## Improved Waist Belt.

city.-Thisinvention consists of a waist belt for ladies' wear, which is woven of a fancy warp of silk cord for the front, a black or binding warp of gimp or strong thread for the body, fine silk warps for the borders, and a weft of gimp. The cord for the
warp and the gimp for the weft are coarse and heavy, so as to produce a warp and the gimp for the weft are coarse and heavy, so as to produce a
ubstantial article of a sufflent stifness for a belt woven with open
meshes. Improved Fireproof Building Block.
Improved Fireproof Building Block.
Willam T. Van Zandt and Lucten A. Tartiere, New York city.-This inven.
ton consists in the use of asbestos and plaster of Pa, is in combination with tion consists in the use of asbestos and plaster of Pa.is in combination with an
proof blocks or bricks for walls, roofs, cellings, floors, and partlitions, the proof blocks or bricks for walls, roofs, ceilings, floors, and
material being made plastic with water and shaped in molds.

Improved Sample Fastener.
ew York city.-The object of this in
Charles Mason, New York cich. the trade a device of again, avoiding thereby the inconvenience of the present mode of applying them, and saving time and labor. The invention consitst of a wire bent in triangular shape, with ends overlapping each
other, and acting like springs, one end being applied to show cards or boxes, the other to the article to be exhbitted.

Improved Wood Fence.
ntion has for its object to furnish an improved fastening for securing pickets and other upright
oards or planks to the horizontal bars of the fence. In putting up the ence, bolts are passed through bars midway between the pickets. A wire is passed through a hole in the head of the bolts or around a groove or neck
ormed upon sadd bolts. A second wire is passed along a bar upon the side ormed upon sald bolts. A second wire is passed along a bar upon the side
oposite the pickets, and the ends of the bolts or spikes are bent down prosite the plckets, and the
or clinched around the said wire.

## Improved Toy Puzzle.

Benjamin F. Ellis, Newton, Pa.-This invention consists of a puzzle com cross bar for each bow passing through the rings, and having a similar ing at each end, the two beingconnected together by the large bow passing ross bars is a large ring made in two semicircular parts, which in werking out the puzzle is to be worked on and oft the small bow through the rings and over the ends of the bows and cross bars.

> Improved Window Sentilator. ates, Cold Spring, N. Y. The invention relat

John c. Bates, Cold Spring, N. Y.-The Invention relates to the well nown mode of ventilating houses throughair inlets and outlets in the window sashes, and consists in employing two slides, relatively apertured with
respect to each other and to the sash bar, so as to admit either a direct or ndirect draft.
Improved Rotating Hook for Sewing Machines.
Andrew Aird and John Aird, Troy, N. Y.-The objeet of this invention is
to substitute for the present brush loop check, applied to the rotating hook of Wheeler \& Whison sewing machines, a device which does the same work With great regularity, rapidity, and security, avoiding the insufflient work-
ng ofthe brush check and the annoyance resulting therefrom. This inven consists in a reciprocating hook placed inside of the rotating hook a on connection with and regulated by a cam in such a manner that the loop
is straightened and held until the rotating hook is near the needle ready to take up a new loop.
Improved Hose Port Holes tor Partition Walls.
Henry Woodman, Boston, Mass. - Thisinvention tsh an improved device to enable the fremen to has for its thect to furles into a closed room and flood it to extinguish a fire without its being from making so much headway. The invention consists in the box flarin obth directions. The mouths of the box are closed with doors hinged at heir loweredges, which are provided with spring catch locks which can be pened upon the outer side only with a key, but may be unlocked from the
onside by drawing back the bolt of the lock with a stick. In the partition are formed two or more holes, each of which is provided with a door, which doors are placed upon the opposite sides of said partition and are hinged at their outer edges to the sides of the box, and are provided with springs to
hold them closed. When It becomes necessary to use the device the door is hold them closed. When it becomes necessary to use the device the door is
opened; one of the spring doors ist ben opened, a stick or otherarticle is inopened; one of the spring doors ist inen openea, a sick or otherarticle is in
serte rawing back the bolt of its lock by means of a projection upon the inne and of said bolt. The nozzle of the hose may then be inserted through one
f the holes in the partition. One of the holes in the partition may bo use o he holes in the partition. One of the holes in the partition may bc used
o look through while the hose nozzle is inserted through the other, the faring mouths of the box enabling all parts of the room to be seen, and the een flooded, or the fire extinguished, the hose nozzle may be withdrawn and the door closed, the spring door closing itself as soon as the hose nozzle is withdrawn.

## Improved Furniture Castor

Cevedra B. Sheldon, New York city.-The invention rela urntture and other purposes, and is an improvement upon the subject mat er of a patent grantedto thesameinventor,Aprill, 1873, the generalldea bein which the same is carrled out belngmademuch more simple and less expe ive to the manufacturer as well as to the public. Its movable balls will, qually with those of the former patent, prevent silding friction, andinsur distribution of strain, requiring, however, much fewer balls, and but on


Slatted Flexible Support for Mattresses and Car Seats.
Collin Pullinger, Philadelphia, Pa. - The invention consists in two thick inted together at sultable intervals to form pockets into which are placed wooden or other slats.

