## NEW INVENTIONS.

The following are some of the most prominent of the patents issued this week, with the names of the patentees:-
Paper Holder.-D. m. Smite, Springfleld, Vt.-This inventio consists in providing a device by which sheets of paper may be held and hung upon a wall or other convenient places
gong Bell.-Ibaac A. Bevin, Chatham, Conn.-The objecto thie inv. ntion is to construct a gong bell of that class in whic the clapper strikes twice by one pull of the handle, so that powerful spring may be employed and a heavy blow may be struck upon the bell, while the pull will be comparatively easy and very effective.
Metallic Busbing and Fastening for Buckleg.-H. H. Mansfield, South Canton, Mass.-The object of this invention is o provide a simple and cheap article by which woven or leathe straps may be securely attached to the loop part of a buckle, so that the end of the said strap will be wellprotectedand prevented from raveling, and the most exposed parts of the strap will be prevented from wearing out too fast.
Pen Holder.-Edwin Dwight Babbit, New York City-This nvention relates to a combination of a spring with the barrel of the pen holder in such a manner that the said spring depresses the ear end of the pen and also acts as an elastic bolster for the pen nd also permitting an easy introduct
Cream Cracierrs.-Daniel M. Holmes, Brooklyn, N. Y.-This vention relates to an improved cracker of a very light and kers under the name of egg crackers.
Gang Plow.-S. f. Davenport, Jerseyville, Ill.-This invenion relates to a gang plow of extremely simple construction, and which w
Machine for Harvesting Grain.-Charles Denton, Pekin rll.-This invention relates to a machine for harverting grain, whereby the labor of binding and shocking the same is avoided
and is of that class in which the team is placed behind so as to and is of that class in which the team is placed behind so as to propel or shove the machine along in front of them.
Devioe for Raking and loading Hay.-H. S. Palmer, nor well, Mich.-Patented Sept. 25, 1866.-This invention consists in so combining an elevator to a hay rake that bay may be raked and at the same time elevated and deposited upon the load, and in providing or constructing a portion of the elevator in sectionsin uch a manner that they will recede from each other while upon the ground, and approach each other while being elevated, so hat a much wider space is raked over than the load or wago is wide; thus, while the hay is being elevated it is brought tran versely to the load and deposited thereon.
Combined Rollerand Harrow.-James Davis, Laomi, ill.This invention combines the harrow and roller into one machine and mounts both on wheels, and is so arranged that the drive both for the attendant and team:
Portable Boring Maceine.-Robr. Allison, Port Carbon a.-This portable machine is for boring or reaming shaft holes in large cast-iron cog and iy wheels, pulleys, spiders, etc., and especially adapted to the use or machile sops in thelnterior of the country not provided with lathes of sulfcient capacity fo is kind of work. It obviates the slow and expensive hand
Dumping Carriage for Coal, etc.-m. G. Smith and w. f tevens, Kingston, Pa.-This invention relates to carraiges fo coal and other mines, and other purposes, where loads are to be raised or lowered and discharged.
Gang and Sub-soil Plow.-Robt. L. Dodge and E. M. Waleer Gallatin, Mo.-This invention consists in constructing a gang of plows and arranging them in beams, and attaching them to rame in such a manner that they may be either used for surfac plows or for sub-solling.
Weedingand Hilling Plants.-Thomas Beale, New Milford Ill.-This implement is for weeding and hilling plants, and is de gned to supersede the hoe and other hand implements hithert being enabled to use this implement without stooping.
Mangfacture of Powder.-Frane S. Allen, New York City -Thisinvention relates to an improvement in the manufacture of that class of blasting and gun powder which is composed of an such as paper, saw dust, etc
Etaporator.-J. Cooper, Mount Vernon, Ohio.-This inven Eion relates to a pan for evaporating saccharine and other liquids which is provided with a sheet-metal bottom and partitions of the bottom up or sifere whichare produced either by doubling the onds or, rear sections percuitale wire tured up and bent one over the other an partitions. partitions.

Axle-box Cover.-F. K. Hain, Renova, Pa.-This Invention relates to an axle-box cover which is provided with two gudgeons intended to work in suitable eyes on the box. One of these eycs is open on top so that the cover when turned clear up can be re moved, and in the other uncuteye a spring is placed which presses against the end of the gndgeons and forces the cover up against he inner shoalder of the cator open eye. This shoulder is pro rided whe catches so that it is pre ent from opening spontaneousiy, and the inner edges or shoulders of both eyes form inclined planes which, in combina on with the apring aforesaid, render the cover self closing
Beehive.-Sampal Taplor, Burlington, Me.-This invention consists in constructing the beehive in sections so arranged and connected together that any one of the sections may be removed at pleasure, and the sections arranged or disposed as may be re quired, in order to take all the surplus honey from the hive the colony of bees can spare without killing or injuring the bees in the least ; the invention also admitting of old combs beins re moved whenever necessary

Reaper.-Horatio Whiting, New York City.-Thls inven ton relates to a discharging device to be applied to reape or the purpose of laying the cut grain in a continuous swath so with entirely. ith entirely
Self-expanding Auger for Boring Artgebian Welleb-J t. Parker, Farmington, Me.-This invention relates to that class of auger in which the tubing of the well is made to follow immed ately in the rear of the auger, and owing to Jts expanding and con racting construction, the auger may be removed at pleasure nto $h$ ore of hed tor horing the auger is expanded by the resitarce of the materil oring the auger isich or which is being bored or acted upon.
Running Gear of Railroad Cars.-B. Heiderice, Brady's Bend, Pa.-This invention consists in a novel manner of arranging the bearings of the axles, whereby due provision is made against accidents caused by the breaking of the axles. It also consists in a means for supporting the trucks where'ly they will be re ained in running position if a wheel should break. And forthe consists in a mode of connecting the two trucks together whereby the same will be made to adjust or turn themselves in adial position in turning curves on the road and the trucks pre ented from running of the rallsif a fiange of a wheel should reak, one truck serving as a guide for the othe
Sand Pump.-James Benson, Bellair, Ohio.-The object of this invention is to construct a pump for removing sand, mud, and educed rock from an oll or other deep well.
Winnower.-Francis Frye, Time, Ill.-This invention con ists in so comoining an eccentric to an upright lever which connected to a screen or fan for cleaning grain as to produce egular longitudinal reciprocating motion to the scree nof a winnower.
Double Shovel Plow.-Joen Clarridge, Pancoastburgh Ohio.-This invention is designed to furnish an improved double hovel plow so constructed and arranged that by occasionall changing one of the shovels, the same plow may be used for cu ivating the corn through the whole seaso
Combined Single Row Corn Drill and Planter.-Joe clarridge, Pancoastburgh, Ohio.-Thisinvention is designed to urnish an improved machine which may be used for planting corn in drills orhills as may be desired.
Self-unloading Wagon.-Harvey Barton, Black Earth Wis.-This wagon is intended for farmers' use for hauling dirt, for enders of different kinds of articles such as vegetables, etc., and or all uses where it is desirable to keep differentarticles separat ing the wagon.
Top for Fruit Jars.--J. F. Winchell, Springfleld, Ohio. This invention consists in the construction of a cap or cover fo ruit jars, etc., with a convex upper face; and in the employmen and arrangement of a cam lever and presiare lever upon a clamp ing or cross piece, in such manner that the cap can be pressed esired, se, but ont he contrary, remaining in a proper position for con tinued use.
Miners' Fuse Lock.-Gebiard Hagenmeyer, Big River, Cal -The object of thisinvention is to provide an apparatus by mean of which miners and others can light a fuse with safety to them elves and with certainty.
Buckle andRing.-R. C. Dunham, New Britain, Codn.-This nventionconsists of abuckle or ring composed of a metal core overed with or protected by vulcanized india-rubber or othe uckle or ring in in such manner that a strong, cheap and durable eather strang is obtained which is not hable to wear out nhe eather covered buckle or ring.
Braiding Ciroular Warp Frame.-J. Dalton, Wilijams burgh, N. Y.-This invention relates to a machine which produce combined warp and knit stitch applicable particularly for cover ing skirt wires, cords or other materials, or for the manufacture flamp wick, lacings, etc. The stitch is produced by a series of ated easily by an independentlezer in a circular frame, in such a manner thata perfectweb can be produced of three or more strands or threads of the same or of different materials, each trand or thread being recejved by its own and unchangeable line of needles at every revolution.
Machine for Manofacturing Moldings.-Thomas J. Close, Philadelphia, Pa.-This invention is designed to furnish an im. proved machine, by means of which composition moldings of any esired length and of any desired pattern, may be easily, quickly and accurately manufactured.
Process for Preparing and Tanning Hides and Skins. Geo.M. Meisery, Greenbush, Wis.-This invention relates to ew and improved process for preparing and tand hise or is producedin comparatively short time and with little labor
Windlass.-Wm. Goodman, St. John, n. B.-The shaft in thi hip's windlass is like those in common use, having two ratche wheels and a center cylinder with ratchet t.eeth or detents. The ratcher whed paws attached to them, the Jols bing placed at the end of xed on a cast iron shoe, such rollers working on the surface of horizontal cam, which is connected to the spindle of the capstan by means of a coupling collar and keys.

Beefive. - $\operatorname{Cl}$ lya E. Ellis, Friendsville, Ill.-This invention ha or its object the constructing of a beehive in nuch a manner tha perfect ventilation will bc obtained, superior facilities afforded the hive.
Beetive.-Henry A. Tozier, Littleton, Maine.-This invention elates to an improvement in the construction of beehives, where by several advantages are obtained over the ordinary hives, such as a more thorough protection against the bee moth, proper ventilation, security against cold, etc., etc
Corn Colitifator.-L. O. Stevens, pekin, Ml.-This invention relates to a new and improved cultivator, designed for culti-
vating corn and other crops grown in hills or drills, and it con the oper and operates the plows with the greatest facility in the prosecu and operates the
tion of his work.
Corn Planter.-E. r. Holford, Westford, Wis.-This invention consists principally in constructing, in a peculiar and novel manner, a slotted slide or valve to regulate the flow of seed from a corn planter, in combination with a lever and cam or ratchet wheel.
Lathe Chuck.-D. E. Whiton, West Stafiord, Conn.-This in. rention consists principally in a novel manner of bolding and securing the pinion within the body or case of the chuck.

## Inventions Patented in England by Ameri-

 cans.Condensed from the "Journal of the Commissioners of Patents."]
PIROVISIONAL PROTECTION FOR SIX MONTHS.
1.514.-Constroction of Reflector.-William M. Marshall,
Philadelphia. June 2,1860 . 2,002. - Sugoze-consfming Heater.-George W. Fair, Dayton,
Ohio. August 2 1866 . 2,041.-Double Hydrostatic Scales for Determining the
Load of Ships or Boa'ts.- Wilhelm O. Reim, Springfield, Ohio.
August 8 , 1866 . August 8, 1866 .
2,172.- Mode of Prevenving Fqgs from Spoiling.-Jesse K
Marsh, Terre Haute, Ind. August 23,1866 . 2,181.--IMPROVEMENT IN ORGANS, PIANOFORTES, AND MELO-
DEONS ALSO AP PLICABLE TO OTHER MUSICAL INSTRUMENTS HAVING RE YBOARDS.-George B. Kirkham, New Yore City. August
24, 1866 . 2,190.-Combring of Wool and other Fiber.-Cullen Whipple,
Cranston, R. I., and Elisha Johnon, Wethersield, Coun. August
25,1866 .
 2,199.- STEAM ENGINE.-John F. Allen, New York City, and
Carles T. Porter, Old Trafiord, county of Lancaster, Eng land.
August 25, i866. August 25, 1866
 2,229.-Loom.-Thomas Robjohn, New York City. August 29,
1866. 2,231.-Bregch-Loading Fire-arm.--Barton H. Jenks, Brides-
burgh, Pa. August 29, 1866. August 30 , 1866 .


## TAE MARKETS

There is no marked change in business matters since our last The prem um on gold continues ncarly the same, with a present emporary inflation, and the prices of almost all commodities are flve andeven four per cent Buyerspurch aperimmedi sumption, the general expectation of a change in values inclining to caution. For this among other reson, there is little disposi tion toward speculation. It is a gratifying fact that up to sept 30 th, our public debt has been reduced $\$ 183,916,384$, while we have in the treasury $\$ 86,259,909 \mathrm{in}$ coin. There has been somewhat of a decline in flour and wheat, but most other articles of prime cessity maintain their former prices.
ASHES-Pots are in demand, but the supply is limited. Prices,
$95 @ 10$ on bbl. Pearls are scarce. BRICKS-Cemmon Hard, $\$ 12 @ \$ 13$. Croton and Philadelphia
phia are $\$ 16 @ 17$ for the former. and $\$ 50$ for the latter. COAL-Foreign scarce and in demand. Lehigh, at Elizabeth-
port, $\$ 750$ Cumblerland, at Georgetown, D. C. $\$ 5$ jon
Cumberland $\$ 225$. Sreiglit on cOFFEE-Demand tor Rio. Laquay ra, $181 / 2 @ 19 \mathrm{c}$., gold; 26 c .,
currency. Costa Rica, 20c. Java, $25 / / 2 \mathrm{c}$. COPPER-Detroit, 31@31 $1 / 2 \mathrm{c}$. ; Portage Lake, 31//2c.



 IRON-Scotch Pig, scarce. Prices have advanced. Glengarnock,
\$52@ $\$ 53$. American $\$ 48$. Bar refined, $\$ 105 @ 10750$. LA THS-Are firm, with sales of Eastern at $\$ 4$, three months. Lipe, 1114c. ${ }^{\text {LI }}$.

 LIME-The market for Rockland is steady at 8170 for com.
mon, and $\$ 2$ for Lump, cash. Rosendnle Cewent, $\$ 175$, LUMBER-The market for Eastern Sprace and Pine is moder.
ately active, with sales at $\$ 2$ @a $\$ 24$, usual terms.






ZINC- $93 / \frac{1}{2}$ c. less 4 per cent. for gold; $131 / \varepsilon_{c}$., currency, for Le
Recerprs.-When money is paid at the office for sub scriptions, a receipt for it will always be given; but when sub scribers remit their movey by mail, they may consider the arrivalof the first paper a bona-flde acknowledgment of the r ception of their tunds.

## Improved Wheeled Litter and Ambulance.

The war created a demand for appliances to be used for the sick and wounded, appliances of which our service was, at the opening of the struggle lamentably deficient. The invention illustrated in the engravings appears to be the best and most comprehensive device which has yet come under our observation. Nothing has been omitted that could be employed to diminish the torture of a wounded soldier or sick person. Surgeon General Barnes says that this litter should be used not only in the army, but should be adopted in all large towns and cities for conveying the injured and sick to their homes or the hospital. As will be seen, by examining Fig. 2, it can be put into a compact form for transportation when not in use.
Twolongitudinal bars, with transverse connec tions, form the frame of the litter. These lengthwise bars have handles at each end to give facility for using the device as an ordinary stretcher. An axle can be added with wheels supporting springs,when the distance from the place of injury to the hospital is too great to be performedin the usual manner. The litter then becomes an ambulance.
The longitudinal bars, $A$, are hinged at $B$, at which point is a sliding bolt, which rigidly se cares the tro pieces in
flowers are raised for distillation into extracts, used in perfumery as rose water and as a constituent of Eau de Cologne. The ottar of rose is manufactured mainly in the East and is exceedingly valuable. The city of Damascus is almost environed with rose gardens.

## VULNERABILITY OF IRON-CLADS-.-THE SHOE BURYNESS EXPERIMENTS

A trial has lately been made at Shoeburyness, England, with a nine-inch muzzle-loading Woolwich gun, firing a $250-1 \mathrm{lb}$. Palliser chilled shot, which is said by the London Times to demonstrate that no iron-clad can now be considered invulnerable. The facts, as nearly as can be ascertained, are, that a target built of eighteen inches of teak, faced with plates


## GENERAL TOMPKINS'S WHEELED LITTER AND AMBULANCE

## CLEANLINESS OF TOOLS.

Dirt is a great disorganizer. Cleanly use will no $t$ half so rapidly wear a tool as uncleanly abus e. "Gurry" in the machine shop was at one time es. teemed a saving ointment, and the workman who could most beplaster his clothes with oil and dirt, whose bench and lathe bore the marks of frequent contact with greasy filth, was cons idered a valuable hand ; too busy to attend to the unimportant matter of cleanliness, and too much engaged with his work to look to the condition of his tools.
It is pleasant to note a change. It is encouraging to see that our master mechanics are unwilling longer to pay a premium on slovenliness. They care but little, perhaps, about the personal appearance of a workman-although he is not so pleasant when he appears as though just fished out of a barrel of petroleum-but it is not comfortable to find a tool, after being used, so coated with dirt that it has to be cleaned before being gaged.
Whenever tools are left coated with grease they gather particles of iron and steel, which, when they are put to use, act as so many particles of emery-grinding and wearing away the cutting edges. Latterly, in well-managed shops, there has been established a department for
one. The legs, C , are also hinged to the bars, A , and secured in a vertical position by the semicir cular braces, D. At E is a sacking to support the person, which is attached at one end to a sliding bar, by which it can be fixed in a level or concave form, as the patient may require. The arm rests, F , are flexible and adjustable, and can be made to meet over the person at any convenientangle, for resting a wounded arm or arms. The head is supported on a flexible sacking, which also can be adjusted and secured as required, the space, $G$ under the head forming a receptacle for articles necessary for the patient. At the foot is a cloth, H , rolled, which can be used to cover the person. The

of solid rolled iron, eight inches thick, and backed by a plate of iron three-quarters of an inch thick, was pierced through and through by a nine-inch Palliser shot, or shell, weighing 250 pounds, propelled by a charge of 43 pounds of powder. From this bare fact the Times draws the inference that the supremacy of iron-clads and monitors no longer exists, and that as this was an English gun and an English shot, the lost sovereignty of the seas is re stored to Britain.
But there are some considerations which do not seem to have entered into these sanguine calculations. We are informed that the target was exactly at right angles to the line of fire, and we are not informed as to the distance of the gun from the target; two very important points in the decision of the question of iron-clads against guns. It is not often that the side of a ship is presented to the guns of an enemy so that the shot shall strike fair Our iron-clads "tumble home," offer ing a diagonal target, and the tur-
top of $G$ is an expansion top similar to that of a rets" of our monitors present always a segment of chaise or buggy.

The axle is made in two pieces, jointed at the center, and, when straightened, held by a sliding sleeve covering the joint. The wheels are held on the axle by screw collars which screw into the inner end of the hub, so that there are no nuts to be lost. The springs are attached to the bars by means of blocks having dovetailed or T grooves, which receive corresponding tenons on the spring blocks. The whole apparatus can be made ready for the reception of a patient in a few seconds, and can be as quickly folded for transportation.

Patented Aug. 7, 1866, by Brevet Brigadier General Charles H. Tompkins, U. S. A., Washington, D. C., who will furnish all additional information.

## The Rose.

The trade in roses, as is well known, is of con siderable importance in France. Rose trees are cul tivated in different parts of the country in open fields, just as turnips or cabbages. Thus, there are 500,000 rose trees near Orleans, 200,000 near Metz, $1,000,000$ near Angers, $1,500,000$ near Lyons, 2,000,000 near Paris, and $2,000,000$ in the thirteen communes of Bri-Comte-Robert. The varieties called Rose-The, the Bourbon, and Mousseuse flourish particularly in the environs of Paris and Orleans. These
a circle for a mark. It may be doubted, also, whether this Shoeburyness target presented a resistance equal to that of our monitor turrets. They are made of twelve inches of iron and may be increased to twenty-four. It certainly makes some difference whether a shot strikes against a vertical wall or against one inclined at an angle or curved on a circle. Distance from the object is also another point of difference.
But the shot, from any point of view, was a remarkable one. The gun was smaller than those used in our Fortress Monroe experiments, and the charge of powder less. The effects of those trials were of such a nature as to demonstrate the worthlessness of granite walls as a defense against great guns, and those at Shoeburyness seem to indicate great progress in deciding the vulnerability of iron ships.

The ship-rigged boat Red, White and Blue, now creating some excitement in England, is the identical metallic life boat which received the gold medal at the fair of the American Institute in this city last fall.

The Mobile papers announce valuable coal discoveries within convenience distans of that city.
the care of small tools, and when the workman has done with them he must return them in a clean state, or he is charged with the time employed in cleaning them. The practice is a good one and should be generally adopted.

## RUSS'S PATENT KNIFE AND SCISSORS SHARP

 ENER.The above little implement, which is engraved full size, needs but little explanation to exhibit its advantages. Dull knives and gnawing scissors are an abomination, as every householder and housewife can testify. With this sharpener these commonly used utensils can always be kept in order.


It is a block of hard wood with slots inclined to the central blade, A, the lower ones adapted to the edge of a knife and the upper ones adapted to the bevel of scissors blades. The blade, A , is a piece of very hard steel, the edges beveled to present a cutting surface. The knife or scissors is placed in the slot, and drawn toward the operator, being held, the while, firmly against the cutter. A slot and screw admits of the re-adjustment of the cutter when worn at one point, and it can be readily removed for grinding.
Patented through the Scientific American Patent Agency July 24, 1866, by James J. Russ. For rights and other particulars address Russ \& Eddy Worcester, Mass.

Mr. Burns, a telegraph operator in Worcester, Mass., recently sent 250 words, containing 1,166 letters, in six minutes and seven seconds.

