MANUFACTURING, MINING, AND RAILROAD ITEMS.

THE San Francisco Bulletin says: - One of the prominent executive officers of the Central Pacific Railroad has declared within the last ten days that this road will be fimshed to Salt Lake, and passengers will be transported over its entire length by the 4th of July, 1869. It is pretty certain, now, that there will be very little difference of time in the completion of the two roads. The prediction amounts to this in effect: That on the 4th of July, 1869, passen gers will be able to travel by continuous rail across the continent, from San Francisco to New York. Strange as the proposition seems, we are not prepared to controvert it. The two great companies have surmounted the greatest obstacles which are to be encountered on their respective lines Each has passed the summit of the highest intervening mountain range are now on the "home-stretch." The coming winter weather will not interfere, as heretofore, with the progress of the work. Only a limited force could be used in the deep mountain cuts; but npon the plains and more open country, gangs of men can be distributed at various points. Bringham Young it appears, has not only contracted to build a section of the road from Salt Lake eastward, but is likely to undertake quite as large a job for the Cen. tral Pacific Railroad, west of Salt Lake. President Stanford was in the latter point some days ago, and there is little doubt that arrangements will be closed with Young for such available held as he can furnish. A large ship ment of railway iron, said to amount to 5,000 tuns. is to be sent accross Isthmus, and a dozen ships are under charter to bring rails by way of Cape

It is announced in Southern papers that new and important discoveries in the manufacture of steel, the results of which are of such magnitude as almost to stagger belief, will be shortly made public. The steel is said to be made directly from brown hematite ore. The process is said to be endorsed by distinguishet engineers.

An Exchange says:—More than four thousand gallons of coal tar, which had floated through a sewer from the condenser at the Manchester gas works has been pumped from a small creek east of the work. A similar deposit, estimated to reach 200,000 barrels, has recently been found in Charles River near Boston.

It is rumored that a sixty-four gun man of war is now on the stocks of a private yard in New York, being built for the Spanish Government, to be used in a war against Peru and Chili.

 Λ N examination of the United States statistics of manufactures, shows a clear increase in wages in 1866, of upwards of 60 per cent as compared with the wages paid in 1860.

CHICAGO has 34 breweries, 29 planing mills, 12 grain elevators, 18 iron foundries, and 54 packing houses.

Argent American and foreign Patents

Under this reading we main smouth toesely to the Section of the room openion went have and streigh patents.

APPLE PARING AND CORING MACHINE.—Isaac Rogers, West Chehalem, Oregon.—This invention has for its object to furnish an improved machine so constructed that apples may be pared, cored, and quartered, or cut into pieces with once handling, and which shall, at the same time, be simple in construction, not liable to get out of order, and will do its work fast and well.

TIREFRAME ATTACHMENT.—N. H. Mead, Waterport, N. Y.—This invention has for its object to improve the construction of tire frames so as to make them more convenient and effective in operation, and which will enable the wheel to be detached and turned, when required, before the tire can get

FIRE KINDLING.—J. Granier, Ch. Gagdin, and Z. Granier, San Francisco, Cal.—This invention has for its object to furnish a simple, convenient, effective, and reliable means for starting or kindling fires in stoves, ranges, furnaces, and other places.

HAME FASTENER.—A. B. Woodard, Alired Center, N. Y., and Samuel A. Woodard, Harnellsville, N. Y.—This invention has for its object to furnish an improved hame fastener, simple in construction and effective in operation, drawing the hames closer together during the operation of locking, and holding them securely when locked.

HYDROSTATIO PUMP.—W. P. Callahan, Dayton, Ohio.—This invention relates to an arrangement whereby a forcing pump, which is used to operate bydrostatic presses in the process of manufacturing linseed oil and other similar operations where hydrostatic presses are used, is made and arranged so as to operate upon a number of presses, thereby saving much valuable time, and greatly facilitating and expediting the operation.

Pump.—R. W. Cronse, Westminster, Mo.—This invention relates to the class of double-acting cylinder pumps, and consists in a new and improved arrangement of the valves by which power is economized, while the machine is rendered less complicated and less liable to get out of order.

CULTIVATOR.—A.P.Routt, Liberty Mills, Va.—This invention is an improvement upon the one patented by me April 30, 1867. and consists in an instrument which I attach to the standards that support the plows, and employ for the purpose of cutting and destroying the weeds and grass between rows of standing corn and other growing vegetables.

APPARATUS FOR FEEDING FUEL TO FURNACES.—J.G. McCormick, Louisville, Ky.—This invention is an apparatus for carrying fuel, coal, saw dust etc., from a bunker to the furnace, and feeding it regularly, uniformly, and evenly over the length and breadth of the fire grate, under any number of steam boilers, at the same time. The machine is worked by the engine, and requires no care except in keeping the bunkers supplied with fuel to be

CALCULATING BALANCE.—Benj. W. Ogburn, Whittles' Mills, Va.—The object of this invention is to provide a simple, cheap, and easily operated balance, which will indicate either the weight of an article or its gross price.

MACHINE FOR STUFFING HORSE COLLARS.—S. B. McCorkle, Greenville, Tenn—The object of this invention is to construct a machine which will place the straw in the collar in such a position that its elasticity will be preserved and utilized, thereby producing a better collar than any heretoiore made, whether by hand or machinery.

CHUEN MOTION.—David Morris, Bartlett, Ohio.—This invention consists in the use, in connection with a device forimparting two strokes of the dasher to one revolution of a crank, of a supporting frame consisting of an upright having a foot which is provided at its extremity and underside or bottom with a screw-threaded tubular stem, which serves the double purpose of a guide for the dasher shaft and means of attachment of the frame to the lid of the churn vessel.

GANG PLOW.—J.F. Porter and A. Norton, Tidioute, Pa.—In this gang plow, each plow has a binged colter which severs the weeds, roots, etc., and by which the plow is drawn forward; the heel of each plow is hinged to its standards, and a new supporting frame, and new means of attaching and adjusting the plows upon it, are employed, by means of all which improvements a lighter, neater, stronger, and more completely adjustable gang plow is produced, than has ever heretofore been brought into use.

GUNPOWDER.—Paul A. Oliver, New York city.—This invention relates to a new and improved gunpowder, the advantages of which are, that it can be made much more rapidly, with perfect safety, cheaper and stronger than the ordinary gunpowder now manutactured.

Self-Acting Variable Cut-off,—Samuel Stanton, Newburg, N.Y.—This invention relates to an application of a governor to the slide valves of a steam engine, whereby a more equitable motion than usual is obtained, and the steam admitted into the cylinder at all times when the ports are fully open, whereby the "wire-drawing" of the steam occasioned by the latter passing through a partially-opened port is avoided, and the steam within the cylinder allowed to work under a pressure equal to that which it has in the

HORSE HAY FORK.—C. E. Murray, Sugar Valley, Pa.—This invention relates July 7, 1868.

to a horse hay fork, for unloading bay and mowing it away in barns or forming stacks. The invention consists in a reculiar construction of the fork, whereby a large amount of hay may be lifted or unloaded in a given time.

TRUSS.—Thomas S. Lindley, Medora, Ind.—This invention relates to a truss of simple construction, which may be manufactured at a trifling cost, and be applied in such a manner that thewearer may attend to any active business without any difficulty whatever.

DRESSING GRIND STONES.—Philip Leonard, Sharon, Pa.—This invention relates to a machine for dressing grind stones and wheels or cylinders of any mineral composition for grinding, polishing, etc.

CHAFING ROLLER FOR WAGONS.—James M. Maybew, Providence, R. I.— This invention relates to a device for protecting the sides of wagons or other vehicles from chafing or wearing when the front wheel may be turned, and it consists in a hollow concave iron roller, secured to a holding frame, as bereingfter described.

FREAST STRAPS.—A. L, Hill, Decatur, Ill.—This invention relates to an improvement in breast straps, whereby several advantages are obtained over those in present use, to wit, much greater strength and durability, the avoidance of wear by the friction of the rings of the neck yoke on the straps, and a more ready means of detaching them from the hames and neck

BURGLAR FIRE ALARM.—William J. Biggar and John C. Blood, Conneaut, Ohio.—This invention relates to a circuit breaker for a fire alarm, designed to be connected with the apparatus of a magnetic burglar alarm, for which letters patent have been applied for by Wm. J. Biggar, John C. Blood, and D. M. Griswold, in connection with a device for breaking the electro-magnetic circuit by the entrance of a burglar through a door or window. This device for a circuit breaker is operated on by the heat of a fire that may occur in a room where it is placed, and thus give timely alarm through the agency of the magnetic signals.

HORIZONTAL RECIPROCATING STEAM ENGINE AND WATER.—Thomas Reese, St. Louis, Mo.—Thisinvention relates to an improvement in horizontal steam water or pumping engines, whereby economy in both space and power is obtained, and it consists in an arrangement for supporting the cross head and pitman, and producing a parallel motion without theuse of the ordinary guidesor ways.

COFFEE POT.—Benjamin Boardman, Malden, Mass.—This invention relates to an improvement in coffee pots, by the employment of certain means whereby the steam and aroma which arises from the coffee during the process of boiling is condensed and saved or not allowed to escape.

GAFG PLOW.—George Wharton, Jerseyville, Ill.—This invention relates to a gang plow, and it consists in a peculiar construction of the same, whereby the plows may be operated (raised and lowered), by the device with the greatest facility, and also made to conform to the uneven surface of the ground, so as to operate or turn a furrbw slice in a pertect manner, whether the ground be level, undulating, or more or less inclined.

IMPROVEMENT IN LANTERNS.—Andrew Whelden, South Dennis, Wis.—This invention relates to an improvement in lanterns, which are provided with lamps, more especially designed for buroing petroleum and similar hydrocarbons, the fiame of which is not very persistent, and is liable to be extinguished by a sudden upward and downward movement of the lantern.

LAMP BURNER.—Frank H. Fuller. South Boston, Mass.—This invention re lates to improvements in lamp burners for burning keroseine or other oils.

CULTIVATOR.—G. W. Cook, Macon, Ill.—This invention relates to a cultivator, and it consists in a peculiar construction and arrangement of certain parts whereby the driver may either walk or ride, as he may desire, and be capable in either case of operating equally the shares and shovels and managing the team.

SECURING HEADS IN BARRELS,—Peter Rink and Jas. Docherty, Wertsville, N. J.—This invention consists in securing heads in barrels in such a manner that the heads may be secured in barrels and removed therefrom without disturbing the hoops, and, in case of sbrinkage, the heads rendered capable of being expanded in order to insure a tight adjustment of them in the barrels at all times.

CLOTHES MANGLE AND IRONING MACHINE.—Joseph Seamans, Chicago, Ill.—This invention relates to an improved clothes mangle, and consists of a device for actuating the lower roller upward against the top roller, by means of a pair of levers and a weight.

WELDING FLUX.—J.R. Tryon, La Crosse, Wis.—The object of this invention is to provide a superior welding flux or compound for steel or iron, which operates to refine and toughen themetal at the welded surface, thereby securing a perfect junction.

HUB BAND FITTER.—Charles E. Stone, Amesbury, and Alfred Herbert, Salisbury, Mass.—The object of this invention is to fit the outer bands of carriage hubs in an expeditious and easy manner. It consists of a tool with which a continuous shaving is pared from the hub by simply turning the wheel on its axle and holding the tool in proper position upon the hub.

COMBINED DIE AND PLUNGER.—H. G. Williams, Providence, R. I.—This invention relates to a method of forming tin or metallic boxes and covers for thesame.

SPECTACLES.—Erastus S. Clapp, Montague, Mass.—This invention has for its object to provide spectacles for those who use them, which shall not require to be removed from the nose when the glasses are not needed, whereby much trouble and inconvenience are avoided.

HARVESTER SHARPENER.—Edwin L. Bushnell, Poughkeepsie. N. Y.—The object of this invention is to provide an instrument for sharpening the cutters reaping and mowing machines.

FURNACES FOR SMELTING ORES.—J. W. Shaeffer, Red Wing, Minn.—This invention relates to improvements in furnaces for smelting and reducing gold, silver, copper, and other ores, whereby many of the objections to the ordinary methods of reducing those ores are overcome.

PRINTERS' GALLEY.—Charles H. Lawrence, New York city.—The objectot this invention is to construct a galley in such a manner that it will not be affected by shrinking. The frame is made of wood with its corners halved and mittered so as to make a good stiff joint, and is cut down its center along the inner side a depth of about two thirds its width, so as to receive a metal tongue, which is soldered to the lining. The lining is secured to the frame by screws which pass through the tongue into the frame, thus leaving the lining perfectly smooth and free from the heads of screws.

MAGNETIC BURGLAR ALARM.—Wm. J. Biggar, J. C. Blood, and M. Griswold, Conneaut, Ohio.—This invention relates to improvements in the construction and arrangement of an instrument for giving an alarm on the entrance of a burglar into a house, by means of a magnetic circuit, and consists in connecting copperwires with a battery to run through the house, and having circuit connections attached to the doors and windows, so that when a window or door is opened by a burglar the break of the circuit shall release windowfrom the magnet and thus act upon an alarm by striking a bell and lighting a fluid lamp or candle in the room where the instrument is placed.

VAPOR OR MEDICATED BATH.—Wm. Kent and Chas. Winterburn, Cincinnati, Ohio.—The nature of this invention consists in a box of peculiar construction, in which may be used medicated vapor baths, etc. It also consists in the combination of medicated baths with the vacuum produced in the aforesaid box. It further consists in the combination of electro-magnetism with a vacuum; also in the combination of vapor or medicated vapor baths with electro-magnetism produced in the said box.

LETTER BOX.—D. P. Jordan, 115 Randolph street, Chicago, Ill.—This invention relates to a new and improved letter box, and provides for the safe and convenient deposit of letters, papers, and other mail matter, separate receptacles being furnished for each, with hooks at the bottom to attach a mail bag into which the contents of the box are conveniently discharged through a trap door. The door is provided with a suitable lock, and the entire apparatus covered by a lid, to protect the contents from the weather. Patented July 7 1898

BROILING STEAK BY GAS.—H. Y. Lazear, New York city,—This invention relates to an apparatus for broiling meats or steaks by gas, or over a gas stove.

MANUFACTURING RAILS.—Wm. Haywood, and John Lees, Danville, Pa.— This invention relates to the manufacture of rails for railroads, of iron or steel, or iron and steel combined.

ANILINE DYE.—Benoit Bloch, Soultz, France, now temporarily New York city.—This invention relates to a gray dye, prepared from aniline oil.

SPUR AUGER BITS.—James Swan, Seymour, Conn.—This invention relates to an improvement in the manufacture of spur auger bits, and is designed to accomplish by means of dies what has hitherto been done by hand with skilled labor.

SOLES FOR BOOTS AND SHOES.—Baker Van Ansdall, Keokuk, Iowa.—The present invention consists in making the outside or wearing sole of a boot or shoe, of wood and a series of sectures or parts from the ball of the foot to the back of the heel, whereby a flexible sole is obtained.

SPIRALOR WINDING STAIRS.—Wm. J. Keim, New York city.—This invention consists in so constructing winding stairs that by one set of steps two or more separate stair ways can be produced. The steps are made in in shape of straightbars, and secured around a central foot, that fits through the central hole, so that each end of the bar forms a separate step for a separale stair-case, opposite to another step and staircase formed at the opposite side of the central post. In the same manner can treble and quadruple stairs be made, by using steps in which three or four arms radiate from the post.

MACHINE FOR WASHING PAPER STOCK.—J. E. Andrews, Coeyman's Hollow, N.Y.—This invention consists of a water tank provided with an agitating wheel and a hopper adjacent to the same into which the stock to be washed is placed and so exposed to the action of the floats on the wheel that it will be drawn down into the water thereby, where it is, after being sufficiently agitated, delivered to an elevating apparatus whereby it is raised out of the water and carried to any desired hight and delivered from the same. The sad tank is also provided with a means of supplying fresh water and discharging the foul water without carrying off any of the stock, and also with a screen for separating the kennels of grain that may be in the straw or small pieces of gravel or other similar marter.

SHIP WHEEL BRACKET—Isaac N. Bunker, Hillsburg, Nova Scotia.—'This invention relates to a new manner of locking ships' steering wheels when the same are to be retained in certain position, and consists in the use of a bracket which is hinged to the deck of the vessel or to any other suitable stationary apparatus, and which is provided with a notch, which, when the bracket is thrown against the wheel, will fit around one of the spokes or handles of the wheel and thereby lock it and prevent it from turning.

PORTABLE CHAMBER CLOSET.—W. J. Lyman, East Hampton, Mass.—This invention consists in arranging an additional seat-lid, besides the ordinary perforated seat, the lid being hinged to the back of the apparatus, so that it can be folded up or down at will. The hole through the lid is smaller than that through the seat, so that when the lid is folded down upon the seat, the apparatus can be used by children, while it is otherwise fitted for adults.

STEAM PUMPS.—Wm. R. Thomas, Catesanqua, Pa.—This invention consists in an arrangement whereby the steam is made to actuate the valves without the intervention of valve gear, in constructing the cylinder with extensions from each head to serve for the pump cylinders, in the arrangement of projections from the piston to serve the purpose of the plungers for the pumps, and in an improved means of packing the pistons of the pumps.

EMBROIDERING MACHINE—Jacob Einhord, New York city.—This invention relates to a machine for embroidering on gauze or other abric, and consists principally in fitting, the devices by means of which the stitches are made, in a swinging frame, and in stretching the fabric to be embroidered on a sliding carriage so that by these means the stitches can be made to follow any desired pattern that may have to be embroidered. It also consists in the arrangement of the needle and hook by which the stitches are made and in the devices for operating and adjusting the same, and for throwing them in or out of gear.

Business and Lersonal.

I he chargefor insertion under this head is one dollar a line.

For services of experienced detectives to obtain evidence against infringers of patents, address Box 581, Newark, N. J.

The patent sweet fern and chemical lacing, as made by J. H. & N. A. Wilhams, Utica, N. Y., cannot be excelled in quality or great strength.

Gear-cutting engine for small work wanted. Address, with price, C. Williams, Jr., 109 Court st., Boston, Mass.

A partner wanted—a gentleman of integrity and Christian character—with a capital of \$50,000 to \$100,000, to invest in the perfecting of new machinery. Address L. H. Soule, Mt. Morris, N. Y.

Peck's patent drop press. Milo Peck & Co., New Haven, Ct.

A young man who can furnish references from employer as to character capability, etc., desires a situation as sole workman in a repair shop, connected with a manufacturing establishment. For particulars address J. P. Link, East Arlington, Vt.

Agents wanted for 'Marshall's great line engraved portrait of Gen: Grant: Address Ticknor & Fields, Publishers, Boston, and 63 Bleeck er st., New York.

Parties away from the market can have a full description of one of the most extensive stocks of tools and hardware by sending for Wilkinson & Co.'s catalogue, price 59c., 2 Washington st., Boston

Wanted—a machine to straighten sheet iron from No. 14 to % or % thick. Address L. H. Miller, 265 Balt. st., Baltimore, Md.

Universal filter well.—Drives and works successfully everywhere. Patented in Dec., 1867, by Oscar C. Fox, Georgetown, D. C.

Millstone-dressing diamond machine, simple, effective, and durable. Also, Glazier's diamonds, diamond drills, tools formining, and other purposes. Send stamp for circular. J. Dickinson, 64 Nassau st., N.Y.

Prang's American chromos for sale at all respectable art stores. Catalogues mailedfree by L. Prang & Co., Boston.

For breech-loading shot guns, address C. Parker, Meriden, Ct. Winans' boiler powder (11 Wall st., N. Y.,) 12 years a standard article for preventing incrustations. Beware of imitations and pretended agents.

EXTENSION NOTICES.

Isaac R.Trimble, of Long Green, Md., having petitioned for the extension of a patent granted to him, the 10th day of April, 1855, and antedated October, 1854, for an improvement in wooden splice piece for railways, for seven years from the expiration of said patent, which takes place on the 10th day of October, 1868, it is ordered that the said petition be beard at the Patent Office Monday, the 28th day of September next.

Eben N. Horsford, of Cambridge, Mass., having petitioned for the extension of a patent granted to him the 10th day of October, 1854, for an improvement in compounds for neutralizing chlorine, for seven years from the expiration of said patent, which takes place on the 10th day of October, 1868, it is ordered that the said petition beheard at the Patent Office on Monday the 28th day of September next.

Improvement in Machines for Harvesting Cane or

This corn cutter is a simple rectangular frame, on which are mounted the working parts of the machine. The whole is supported by two wheels, one a large driving wheel seen in front with the usual projections on its periphery, and the other a small wheel turning on a stud in the cutter bar. The cutting mechanism consists of two rotary knives, one driven by beveled gears on the shaft just in front of the driver shaft, the other turning free, and both being mounted on the cutter

Between these cutters and the frame is a reel, on a nearly upright shaft which is driven by a worm on the forward shaft by means of a worm pinion, intended for bringing the stalks up to the action of the cutters. A corrugated roller driven by a belt from the front shaft serves to guide the stalks to a platform in its rear which receives the butt ends of the stalks as they are cut, the top ends of the stalks being received on an arm connected to a rock shaft on the rear portion of the machine. This rod with the platform sustains and collects the stalks until a sufficient number are collected to make a bundle. when the pressure of the driver's foot on the lever in front depresses the receiver and allows the rear ends of the stalks to drop to the ground when they are discharged ready for binding or carrying away in bundles. A weighted lever attached to the rock shaft brings the supporting rod back

and the apparatus is ready for the reception of another

The inventor says: "Experience has demonstrated that in corn harvesters, as heretofore constructed, the point of the supporting arm, as it was thrown back into position for receiving the stalks, would become entangled with them and throw them into the gearing of the machine. To obviate this difficulty I extend the rear end of the support over the inside bar of the frame where it engages, by means of a stud and friction roller with a fixed grooved cam, attached to the bar, having at the upper end a rubber spring which permits the friction roller to pass it, but will not allow it to return by the upper track, but forces it down the lower track, by which means the point of the supporting arm is made to incline downward when discharging and is raised up and over the bundle upon its return to its first position." The inclination forward of the shaft carrying the reel and the downward inclination of the arms tend to bring the stalks to the action of the cutters and to raise the stalks if bent. The machine took the first premium at the Ohio State Fair in 1867.

Patented Oct. 9, 1866, and May 5, 1868 by J. F. Winchell, who has assigned his interest to the Champion Corn and Cane Harvesting Company. Address for further particulars either J. F. Winchell, Pres't, Geo. C. Steele, Treas., or Levi A. Simons, Sec'y., Box 425, Springfield Ohio.

Device for Preventing the Escape of Sparks.

Where other fuel than anthracite is used, more or less of ment of the ordinance against the deposition of garbage, or June, at Winchester, to witness a trial of English and Ameri-

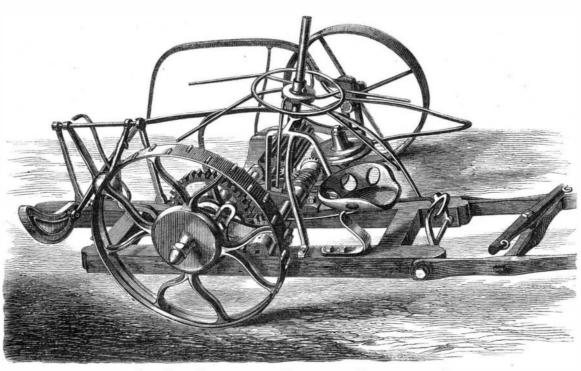
the debris of combustion-the unconsumed portions-is carried off with the smoke, and appears at the top of the chimney, fouling the surrounding atmosphere with dense clouds of dark vapor, or, as lively sparks, endangering all combustible materials around. The attachment of wire gauze to the top of the chimney is not always effectual, and it has been long desired that furnaces, burn ing light fuel, could be so contrived as to prevent these dangerous eruptions of ignited substances, and not only diminish chances of fire from this source, but conserve the fuel thus wasted. These objects are attempted in the device seen in the accompanying engraving.

Under the boiler, A,-an ordinary return flue, horizontal

bridge wall, a pipe, C, extending across the boiler and furnished with a register at either end to govern the admission of atmospheric air. The pipe is perforated on its top, and partially around its upperside by small holes for the emission of the air to mingle its oxygen with the gases, ready to be inflamed. One or more wells, Dand E, are sunk inside the brick work, forming the under flue or space, just back of the well that contains the atmospheric pipe, into which are suspended plates or pendant partitions, slightly curved forward at their lower ends for the purpose of arresting the solid components

ticles. These pendant partitions may be made either of plate the streets. If they keep their back-yards, front areas, iron or of fire brick, as may be desired. One or more may be used, but, from experience, it has been found that one is enough on ordinary stationary engines. More may be required on steamboats and steamships, and on locomotives; to all of which this device is believed to be well adapted.

The products of combustion, in their passage from the firebox to the chimney, come in collision with the drop partitions, impinging against the plates, the lighter portions being carried off by the current of the draft, and the heavier bar between the outer small supporting wheel and the frame. particles falling to the bottom of the well, from which they



WINCHELL'S PATENTED CORN HARVESTING MACHINE

to position as soon as the pressure of the footis withdrawn | may be removed by the doors opening on the side of the | over thirteen geographical degrees in length. wells. The inventor says, that after a trial of fifteen months he found but little debris in the bottom of the well, most of the fuel-the volatile portions-being consumed, and no show of sparks from the chimney, although the fuel used was mostly cottonwood, pitch pine, willow, and cotton seed and "motes," all light and imflammable fuel.

> Patented through the Scientific American Patent Agency, June 2, 1868, by N. L. Carpenter, Natchez, Miss., who may be addressed for State or Teritorial Rights, or any other information desired.

WATERING STREETS AND SIDEWALKS.

We have long been convinced that the practice of deluging uncleaned streets and sidewalks, not merely sprinkling them. is deleterious to the public health, and we are gratified that the matter has been brought to the attention of our Board of Health. A few days ago Dr. Stephen Smith called the attention of this body to the practice, stating that the rapid evaporation of the moisture carried with it into the atmosphere a large amount of poisonous organic matter calculated to breed desease. He suggested the use in the street-sprinklers of suitable disinfectants. Street-filth is far less deleterious when dry than when moist during the extreme heat of the summer months. Sprinkling furnishes one of the two conditions that are absolutely necessary before decomposition can take place, namely, moisture.

We would go a little further and suggest the rigid enforce-

gutters, and a cross section of the street clean in front of their premises, the public authorities should see to the restand give the people clean and cool streets. Even, however, if not watered, cleanly swept streets will prevent noxious exhalations and contribute to the comfort while they secure the health of the residents. A slight sprinkling of carbolic acid or of chloride of lime on the streets would aid in the work of disinfection.

Earthquake Waves.

An earthquake wave which followed the recent eruption in the Sandwich Islands, was transmitted to the Pacific coast and recorded on the government selfregistering tide gauges at San Francisco and Astoria, in about five hours. On the 23d of December, 1854, a similar wave was transmitted from the coast of Japan to the Golden Gate in twelve hours and thirty-eight minutes. It will be recollected that this earthquake wave caused the wreck of the Russian frigate Diana in the port of Simoda, and great loss of life

These facts, which are derived from the best authority, convey a very impressive idea of the tremendous power required to disturb the whole body of an ocean, for a distance of from three tofive thousand miles, by a movement distinct from its ordinary. tidal swing. It will be seen that the revulsion of the great tidal. wave at Hawaii reached this. coast, distant over two thousand miles, in five hours, and was observed along a stretch of shore

These earthquake waves appear to have moved with a velocity of about 400 miles an hour; a speed which suggests the possibility of a more rapid means of transit over the waves than mankind possesses. Here is an opportunity for inventors. On land we move along almost equal with the bird; but the fishes sport under the prows of our fleetest vessels and laugh at our efforts to overtake them.

SHOULD A FARMER BE MORE THAN A FARMER?

We think he should. He should be a mechanic as well; should know something more than

To plow and to sow,
To reap and to mow.
He needs the ability to repair his tools; to understand how to keep his implements in proper condition without being entirely dependent on the blacksmith or machinist, to be able to do carpentering work, to patch and mend harnesses, to mend his tin ware, and do many other jobs which the denizens of towns and cities find it more convenient to turn over to those who make these repairs a specialty. He should have a room fitted for a workshop, with foot lathe and small forge, and all the appliances, on a small scale, of a combined machinist and carpenter shop. Working with these tools is a pleasant employment on stormy days when out-door labor is interdicted, and in evenings.

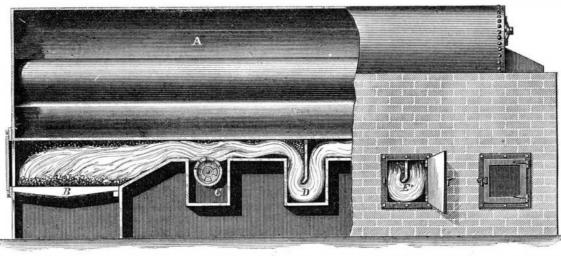
Trial of Mowing Machines.

A large gathering of farmers assembled on the 12th of

can mowing machines, instituted by the Hampshire Agricultural Society. Seven machines, each drawn by a pair of hotses, competed for the prizes. Mr. Wood, jun., who was over from America, and Mr. Cranstone, represented the machine of Walter A. Wood. The American Clipper mower was exhibited by the Reading Iron Works Company. Mr. Phillips, from Grantham, had charge of Messrs. Hornsby's Paragon mower. The partner of Mr. Samuelson, of Banbury, managed the Eclipse machine, Mr. Kearsley, of Ripon, was also a competitor. Mr. James Howard, of Bedford, entered the list for the first time with Messrs. Howard's new British mower. After the machines had gone a few rounds, it was evident to

American or Howard's British mower. At the completion of the plots the judges selected the two latter as the best, and ordered a second trial between them. The work of both was so perfect that the judge had great difficulty in coming to a dicision. However, as the Americans finished the work in a few minutes less time, they placed Wood's first, and Howard's second, giving Messrs. Burgess and Key the third prize.-London Artisan.

STEEL RAILS.—A portion of the Philadelphia, Wilmington, of combustion and depositing the heavier or less volatile par- onding the united individual exertions of residents on and Baltimore Railroad is now being relaid with steel rails.



CARPENTER'S IMPROVEMENT IN STEAM BOILERS

boiler—is the grate, B, there being, just beyond the first | decaying vegetable or animal matter in the street. It is the | the spectators that the first prize would fall either to Wood's practice on all streets inhabited by people who have any knowledge of the effects of decaying organic matter when exposed to the sun's rays, to carefully sweep the walks in front of their premises, and the street to nearly its centre every morning; the rest, that of collecting and removing the sweepings, are considered the business of the city authorities. The street being cleaned, a light sprinkling once or twice a day would effectually keep down the dust, and insure comfort and health; but cleanliness, not moisture, is what is needed and can be secured by the city authorities sec-