

Skating Rink.

In the vicinity of the Central Park, New York City, several enterprising persons have caused whole blocks of ground to be flooded, and on the margin of the pond have erected temporary buildings, for the use and comfort of skaters, and the bands of musicians who play enlivening airs during the afternoons and evenings of the skating season. The proprietors call their respective places skating rinks; but in true terms they are simply skating ponds, unprotected from the weather. But young and old, in large numbers, patronize these ponds when the ice is good, and the scene is very enlivening to the beholder, and exhilarating and improving to the skater, the "poetry of motion," as in dancing, being kept in harmony with the music.

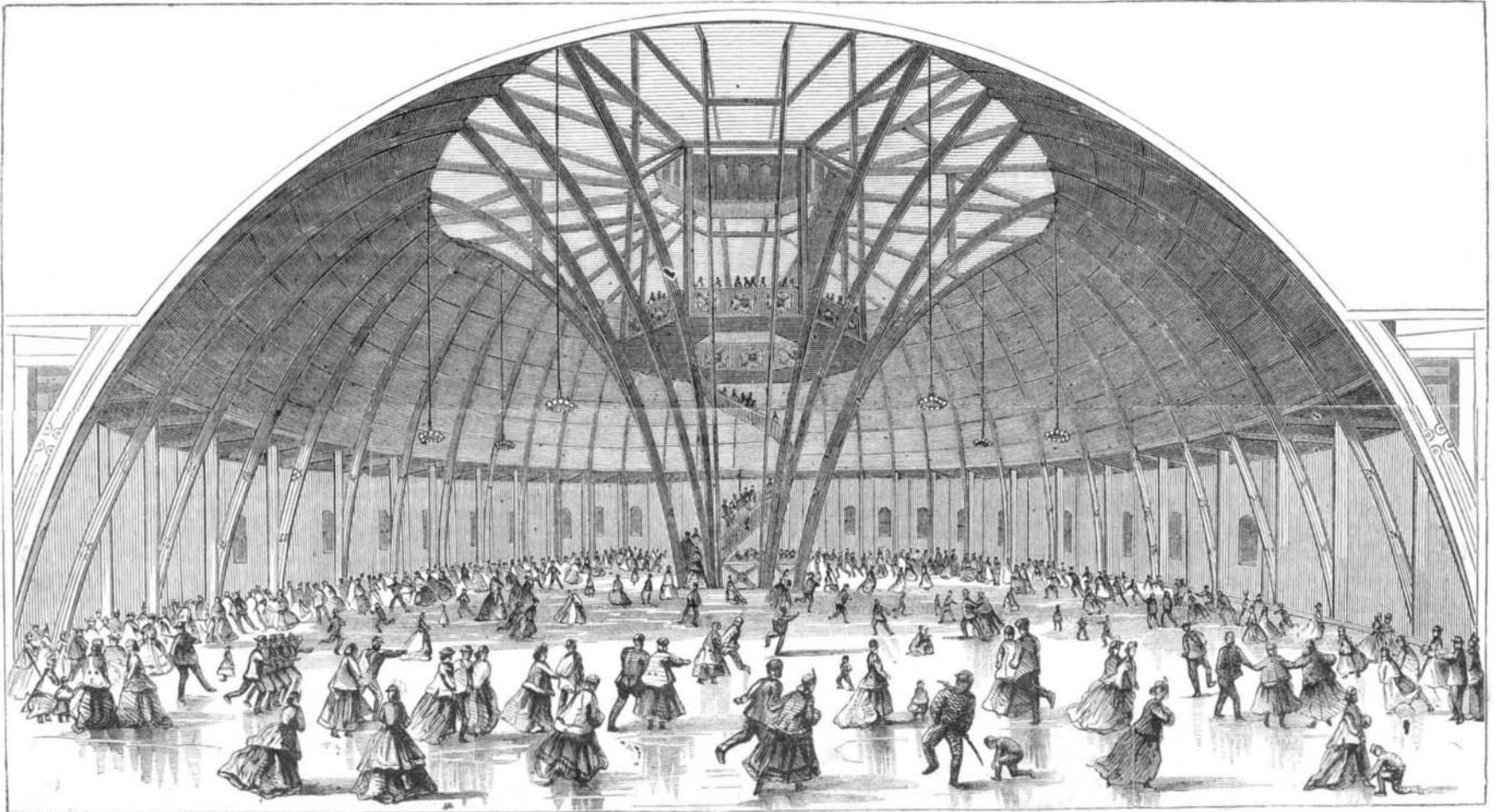
But our British neighbors are far in advance of us in pro-

rooms, and the residence of the janitor. The whole edifice cost about \$12,000, and is in every respect creditable to the projectors and an ornament to the city.

The Dignity of Labor.

"Spice," of the Boston *Commercial Bulletin*, relates the following: "We were never more impressed with the dignity of labor than while witnessing, a few days since, a group of 'down-trodden workmen' engaged in setting up some machinery. There were five of them, or rather four men and a boy, and when they came under our notice, 5:30 P. M., one was engaged in slowly turning over the contents of a box, in search of a screw; two were looking with much interest for the result of the labors of No. 1; the fourth was slowly scratching a piece of iron with a file, and the boy was scratch-

ARTIFICIAL TEETH.—They should never, under any circumstances, be worn at night, and for this reason: it is a physiological fact that bone, in a normal condition, is constantly undergoing a process of removal and replacement of particles, and that continuous pressure prevents the complete restoration of the parts, causing what is commonly called absorption. The osseous structure of the mouth is protected only by a thin covering of muscular tissue and mucus membrane, on the firmness and elasticity of which it depends for protection against the pressure of the plate; but when constantly excluded from the atmosphere, especially by hard rubber, which being a poor conductor of heat, keeps the cover covered at nearly an equable temperature, these tissues lose their elasticity and become spongy and fungoid. Two very undesirable results are thus arrived at. The mouth is re-



SKATING RINK AT ST. JOHNS, NEW BRUNSWICK.

viding comfortable and artistic places for the enjoyment of skaters; and we hope, by presenting a view of the best skating rink we know of, to stimulate the exertions of our people to making similar erections in our own cities. Our climate is not so favorable as our neighbors' for enterprises of this kind, but the receipts for even a short season would be very good in a city of the size of New York, and we think it would pay.

From *Harpers' Weekly* we extract the following description of the rink at St. Johns, N. B.:

"In the British Provinces, where the rink exists in its full and sublime perfection, we find structures as spacious and graceful as a World's Fair palace, whose crystal floors are nightly renewed and polished to gleaming by the biting frost. Each night the icy arena is planed by a machine and flooded to the depth of an inch; and then, through every opened door and window, the keen air is admitted to harden and glaze the surface for the next day's sport. From December until March, throughout the long and dreary winter, the rink affords the chief and constant center of attraction; before it all other festivities pale their fires.

"All the chief cities of Canada boast their skating rinks. Montreal has a model one; but for extent, adaptation to the purposes for which it is designed, and beauty of detail, that at St. Johns, N. B., unquestionably bears off the palm. This rink is owned by an incorporated stock company. The main structure is of circular form, 160 feet in diameter, and covers an area of 20,000 superficial feet. It is an immense dome, resting upon perpendicular walls 20 feet high and pierced with 39 windows, and is surmounted by a graceful cupola, or lantern, the apex of which is 80 feet from the ground. This lantern contains 24 windows, throwing light directly into the interior of the structure. Within, and girding the extreme circumference, is a platform, or promenade, 10 feet wide, for the accommodation of spectators. In the center is a circular framework containing a spacious stand for the band, from which a spiral iron staircase ascends to two circular galleries, one above the other, the highest 50 feet from the ground, whence a bird's-eye view of all that is passing below can be had at a glance. From this focal point also spring the supporting rafters that form the huge dome which constitutes the chief feature of the design, producing an effect airy and graceful in the extreme: it cannot be better described in terms unarchitectural than to liken it to a fountain whose waters, springing from the center, fall in majestically-sweeping curves to the outer perimeter. All the area between the hand-stand and the circular promenade is covered with ice, which is flooded daily from the City Water-works. The outside front is two stories high, with decorated entablature, and contains waiting and refreshment rooms, dressing-

ing his head. No. 1 finally found a screw to suit him, but during the search his pipe had gone out. Laying down the screw, he began to investigate his pocket for a match. Nos. 2 and 3 searched theirs in sympathy, while the flier paused to see the result. Finally No. 2 found a match, ignited it, and handed it to No. 1, who, having accomplished a light, smoked for a few minutes to assure himself of the fact, while the boy went to the other end of the room to look at the clock. No. 1 then looked at his watch, and compared time with No. 3. Time, 5:40. No. 1 then leisurely put the screw into position to fasten a bar. No. 2 held the bar; No. 3 squinted at it from the other side of the machine; No. 4 inspected the whole operation reflectively, as he slowly resumed the filing, and the boy wiped the oil from his fingers. Time, 5:45. The entire labor was now suspended, while the boy was sent across the room for a necessary tool. Just then it occurred to No. 2 that a chew of tobacco was necessary to his comfort, and, as his supply was out, he applied to No. 3 for the weed, and to No. 2 for a knife to cut it with. No. 1 consulted his watch again. Time, 5:50. And labor was resumed, the screw was turned home; No. 1 tried the bar; Nos. 2 and 3 engaged in a playful scuffle, and the boy looked on with a grin of admiration. The flier laid down his work and looked at his watch, and announced it six o'clock. Tools were instantly dropped, and the five, having accomplished the work of two ordinary men, went cheerfully home."

Editorial Summary.

AMPUTATION NOT ALWAYS NECESSARY.—The *British Medical Journal* calls attention to the fact that several of the men who were wounded in the New Zealand campaign, have brought home arms and legs, which, according to the standard rule of military surgery, they ought to have left behind. Out of six cases of gunshot fracture of the femur, five recovered without amputation, four of them with very useful legs. Of ten cases of gunshot fracture of the humerus, eight reunited solidly, and in only one case was amputation resorted to, and that was primary. Guided by the experience of these cases, the surgeon-general says, it would be fair to expect, that, when eighty per cent of gunshot fractures of the humerus recover without difficulty, that amputation in such cases might be delayed for a second operation, if after all found necessary.

UTILIZING SEWAGE.—At Sandon, Isle of Wight, the sewage is conveyed in pipes clear of the town into cesspits, where it is filtered and deodorized by a chemical process. The clear portion finds its way into the sea miles away from the town, and the solid residue is mixed with ashes and road sweepings, and forms good manure.

duced to an abnormal condition, and the plate no longer fits well, which is just what the patient has been trying to avoid by wearing his plate at night.—*Dental Cosmos*.

A CANAL ON FIRE.—In an investigation as to the condition of the rivers Ayre and Calder, which water the great towns of Yorkshire, it was found that the fluid of Bradford Beck, the source of supply to the Bradford canal, was so corrupt from sewerage, that in summer large volumes of inflammable gases were given off; and although it has usually been considered an impossible feat to "set the river Thames on fire," the boys found it practicable to set the canal on fire, the flames rising six feet high, and running along the surface of the water for many yards, enveloping the canal boats, to the great terror of their passengers. That this state of things is not limited to one district was abundantly proved by inquiries at other towns.

THE SUEZ CANAL.—It has been announced that this great undertaking was in such an advanced stage of completion, that already an English vessel had passed through to the Red Sea. It now appears that the vessel was a Government tug-boat, which was to assist in the embarkation of the Indian troops at Suez, and, that after being lightened as much as possible, even to the removal of the paddle wheels, a number of empty casks were placed under her, and in this manner she reached Suez.

SHEET IRON RAILROAD SLEEPERS.—A curious plan for a temporary railway, to be laid for the benefit of the English forces in their excursion to Abyssinia, has been proposed by a Mr. Hadden. The peculiarity consists in making the sleepers of flattened cylinders of sheet iron, closed at one end, and which are to be filled with sand or gravel well packed. The sleepers are then to be laid on the ground with little or no ballast, and the rails secured to them by clip pieces, so as to be easily removed when desired.

THE thin metallic tubes used for holding artists' colors, are made by placing a disk of block tin in a die or cylinder into which a punch is slowly forced by hydraulic or other pressure. The punch fits the cylinder almost exactly, and the tin rises into the intervening annulus, as if it were a liquid, its constituent particles being made to move over each other as they would do if the tin were melted by heat.

AN OLD PIECE OF ORDNANCE.—The Turkish Sultan has given to the British government, in exchange for two large Armstrong guns, a monster gun, twelve feet long, thirty to thirty-six inches in exterior diameter, and weighing from twelve to fifteen tons. Its chief value is its historical one, being one of the pieces of ordnance used in the memorable siege of Constantinople, by Mahomet II, in the year 1453.

WALKING STONES.—We have noticed in this column the "walking leaves" of Australia, and now give our readers the benefit of a statement that has fallen under our notice, of some "traveling" pebbles found in Nevada. They are described as almost perfectly round, the size of a walnut, and extremely hard. When distributed about upon a flat surface, when even separated two or three feet, they immediately gravitate toward a common center. At a distance of five or more feet, the attraction ceases. These stones are found in a very rocky region, which abounds in little basins hollowed out of the rock, from a few feet to a rod in diameter, and in the bottom of these the stones are congregated. We would suggest that perhaps the common phenomenon of the "eye stones"—calcareous concretions—which, when placed in a nearly flat porcelain dish with an acid, as vinegar, will tend gradually toward a common center. receives an illustration, probably, in the above. The effervescence occasioned by the combination of the lime and the acid is sufficient to overcome the weight of the pebbles and the inclined sides of the plate or the natural basin accomplishes the rest.

EFFECT OF ELECTRICITY ON SEEDS.—M. Blondeau asserts that, after many experiments, he has found the action of an induction current on seeds, before planting, produces very beneficial results, noticeable in their subsequent growth. In experimenting with beans, peas, and cereal grains, the seeds were soaked in water for some time, and were then submitted to the action of a current for several minutes. After this they were planted in pots filled with good garden earth, and at the same time other unelectricized seeds were planted and kept under the same conditions for the purpose of comparison. The former always came up first, grew more rapidly, and gave much more vigorous and fruitful plants than the latter. "But," says M. Blondeau, "one very singular fact is that many of the electricized seeds obstinately persisted in growing with the true root pointing up in the air, while the plumule was directed downward," which gives a little shade of incredulity to the whole statement, but the experiment is an easy one for any interested person to try for his own satisfaction.

A NOVEL HITCHING POST.—The party comprising the Russian American Telegraph Expedition, on their return from the northern region, have brought home many interesting relics. An ivory tusk twelve feet long and measuring seventeen inches in circumference, was purchased for twelve leaden bullets from Indians living in the new territory of Alaska. Near the junction of the Anadyr and Myan rivers the party found a tusk of enormous size sticking some six or eight feet out of the ground and endeavored without success to dig it up. The frost in the ground held it so firmly that they were not able to ascertain whether the other bones of the mastodon were beneath or not. The Indians said that they had used it as a hitching post for many years, and that was all they knew or cared about it.

CHINESE TEA GROWN AT HOME.—In our number for Sept. 28, 1867, we gave a description of Dr. Alfred L. Acee's plantation of tea, at Rose Bower, near Bellevue, Talbot County, Ga. We have now the pleasure of acknowledging the receipt, by express, from Dr. Acee, of a few living tea plants grown by him, together with some of the nuts. We have placed the plants in our green house, and intend to raise some tea from the seed. Dr. A. is entitled to much credit for his perseverance in demonstrating the feasibility of raising tea on this continent. The plant forms an ornamental evergreen shrub, and may be readily cultivated in many parts of the country. Dr. A. states that it blossoms in the fall, that it bears exposure even to freezing sleet, and may be cultivated anywhere in the open fields without manure.

CRYSTALLIZED EGG.—Numerous and of very varying values are the recipes for preserving eggs, which have been given to the world, but a company of this city believe that they have at last attained perfection in this line, though attaining their end in a novel way. Their process is as follows: The fresh eggs are emptied from the shell into a long trough, and into this trough descends a shaft armed with a series of metallic disks, which, rapidly revolving, beat the eggs into homogeneity, and are themselves covered with a thin covering of egg. This thin pellicle, when dried, is scraped from the disks in the form of thin granules, apparently crystallized, and retains indefinitely all the peculiar properties and flavor of the fresh egg.

FERTILIZING PLANTS.—The old idea of botanists that hermaphrodite flowers shed their own pollen upon their own stigmas is now generally discarded, as observation has shown the almost infinite variety of contrivances which Dame Nature furnishes to prevent this. It has been recently noted that the insect world plays a very important part in the fertilization of certain plants in conveying the pollen from one flower to another. Another remarkable fact in this connection is that almost all flowers which are thus fertilized are gaily colored so as to be attractive to insects, and Mr. Darwin observes that he knows of no flower fertilized exclusively by pollen blown on the wind, that has not a dull unattractive appearance.

COFFEE-TEA.—We have made frequent mention of the experiment which, if reports are true, has been highly successful, of raising the true Chinese tea-shrub in our Southern States. An exchange calls attention to a new branch of industry in this line, which is capable of still more extended cultivation. It is customary in Sumatra to use the roasted leaves of the coffee plant for the production of a drink having

all the properties of the best of tea, and containing nearly 1.25 per cent. of its peculiar principle. The preparation of the leaves is much simpler than that required for the true Chinese tea, and the cultivation of the plant can be carried on in more northerly countries, where the coffee berry itself would never fully ripen.

A NOVEL MODE OF PASTURING SHEEP.—A grazer in the Pas de Calais, named Pentefort, has introduced the following singular method of economizing his green crops: Over the whole field is placed a rack or fence, so made that the sheep cannot jump over it, but must feed between the bars; and when all the herbage within their reach is consumed, the rack is moved forward, so as to give them a fresh supply of forage. Regularity in cropping and great economy result from the employment of this singular system.

CARBONIC ACID BATHS.—At Piermont, in Germany, there is a natural spring of carbonic acid gas, the sides of which have been walled up, and steps laid for entering it. The well is shallow, and the gas fills it to a depth of about four feet, so that the gas rises about to the middle of a person standing in the well. The effect of the gas in contact with the skin is said to be a peculiar pricking sensation, but not so unpleasant but that such baths have come to be very much in vogue.

MANUFACTURING, MINING, AND RAILROAD ITEMS.

* Samples of ore from the Industry silver mine, in Maine, have been assayed by the Massachusetts States assayer and found to average 8 ounces, 60 grains of silver per ton. An interesting fact regarding this mine is the discovery of silver in magnesia, and white or gray pyrites.

From a list of railroads in California, prepared by the Secretary of the Interior, it appears that up to July 1st, 1867, there were a fraction less than 300 miles of railroad track completed and in running order in that State, with an additional length of 1,143 miles, now being constructed.

Machine belting is manufactured of paper by Messrs. Crane, at Dalton, Mass., and is in use in several New England mills. One of these paper belts measures seventy-five feet long and eight inches wide. Patents have been secured in foreign countries for this invention, through this office, and the article promises to become the subject of much importance.

Notice has been served on the workmen in the iron trade in Middlesex and the Tees District, Darlington, Witton Park, and other parts of the north-east of England, that the masters intend to reduce their wages on the 7th of December. The notice has been issued in consequence of a meeting of the Ironmaster's Association, at Newcastle-on-Tyne, and it is thought that the reduction will average about ten per cent. The men at the Albert Works, Darlington, have accepted a reduction.

The survey of another trans-continental railway route, which shall follow mainly the thirty-fifth parallel of latitude, is nearly completed. Its projectors claim this as the most feasible one across the continent, and even if the Northern and Southern roads are constructed, this would still be the favorite popular thoroughfare, and the easiest and cheapest built.

From lack of economy, in production of ores, it is estimated that the aggregate loss on the production of bullion of this country for the present year, will reach the round sum of \$25,000,000.

Many of the very best locomotive builders in France and Belgium still adhere to the plan of packing their cylinder heads with wire gauze and red lead paint, an antiquated practice long since discarded in both this country and England.

In Brazil, Clay county, Indiana, there is found a species of coal which in appearance and gravity resembles charcoal, having even the woody fibre of the latter. So valuable is it for smelting purposes that one furnace in St. Louis is using five car loads a day, and its existence needs only to be known to increase the demand from other establishments indefinitely. In the same neighborhood is also found an abundance of native iron ore of a superior quality, and a number of iron men from Ohio and Pennsylvania have lately been investing heavily in real estate, and the erection of mills and furnaces in this section.

During last year there were 181,099 tons of new, and 233,834 tons of re-rolled rails made in the United States. During the same period we imported about 100,000 tons, making the total consumption of rails in 1866, 517,933 tons of 2000 lbs.

It has been calculated by Prof. Breithaupt that during the six hundred and forty years, dating down to 1825, which the mines of Freiberg have been worked, not less than eighty-two thousand hundred-weight of silver have been raised, and that the amount yielded in 1850 alone was not less than eight hundred thousand thalers.

There remains to be built to complete all railroad communication across the continent, 1,070 miles of road. As about 700 miles have been built within little more than two years, it is not unreasonable to expect that the remainder will be completed in the time anticipated—say in 1870.

Our Canadian neighbors are now very much exercised over the selection of a route for the new Intercolonial railroad, which is to bind the various members of the new Dominion more closely together. The road is to run from Quebec to Halifax, through the lower part of what was Lower Canada, but now called the Province of Quebec; New Brunswick and Nova Scotia. Three routes have been proposed, and consequently the war of local interests runs high. Of these, the frontier line runs through the most thickly settled regions, but in case of war with us, the Canadians fear the road would be too easily destroyed. The same reason holds good against the second or central route, the northern route being preferred by the Government officials. To ward the construction of the road, the English Parliament is to guarantee a loan of \$15,000,000, which will probably cover the cost of construction.

Recent American and Foreign Patents.

Under this heading we shall publish to-day not a few of the more prominent home and foreign patents.

MANUFACTURE OF STEEL.—James R. Bradley and Moses W. Brown, Chicago, Ill.—This invention relates to an improved process for manufacturing steel of various kinds and grades, and consists in improvements in the composition of mixtures for treating malleable iron.

HOISTING JACK.—S. B. Rittenhouse, Plymouth, Ind.—The object of this invention is to provide a small and portable machine through which a very great power may be obtained for the purpose of hoisting heavy weights, or propelling heavy bodies, or exerting a great force in any direction, as propelling a ditching machine, or a plow for laying drain tile.

INHALING TUBE.—Samuel W. Sine, Easton, Pa.—This invention relates to an instrument which is used for inhaling gas, or anesthetic agents for producing insensibility in surgical, dental, and other operations, or for other purposes.

BOOT-TREE.—F. S. Wilt, Allentown, Pa.—This invention relates to a method of constructing boot-trees, and the invention consists in an arrangement whereby the leg and foot of the boot are treed or expanded simultaneously, by operating a single lever nut on the upper end of the tree.

IMPROVED AUTOMATIC RAIN CONDUCTOR.—James B. Hudson, Fayetteville, N. C.—This invention relates to an apparatus for conducting water into cisterns or tanks, and has a conducting disk to oscillate on pivots, and connect-

ed with a float, whereby the said disk is made to reverse its angle of inclination and deliver the water into a waste pipe, when the water in the cistern reaches a certain point.

ASH HOUSE.—Moses Hall, Osborn, Ohio.—This invention consists of a hopper and screen upon a fire-proof ash box, and the whole placed upon a leach tub; said leach tub being provided with a screen or perforated plate through which the lye passes off.

CASE OR BOX FOR PRESERVING CORPSES.—P. Wendhiser, Rockville, Conn.—This invention relates to a case or box for the preservation of corpses, which box or case is constructed in a novel and peculiar manner, whereby it is rendered extremely efficient and desirable, as well as serviceable, for the purpose intended.

GENERATING AND SUPERHEATING STEAM.—George Miller, Melbourne, Victoria.—This invention relates to the manner in which steam is generated and superheated, and to the means by which the pressure of the steam is regulated, and also to the manner in which the temperature is concentrated, and consists in providing, in connection with a furnace or fire box, generating pipes or tubes wherein the water enters and is converted into steam, and also superheated.

PLOWS.—S. J. Leach, Tuscaloosa, Ala.—This invention has for its object to furnish an improved plow provided with a detachable facing formed of wood or other material, to which adhesive soils will not adhere and clog the plow, which shall be cheap, more durable, and more effective than the plows ordinarily used in such soils.

LAND CONVEYANCE.—G. F. Krollpfelfer, New York City.—This invention relates to an attachment for sleds, sleighs, and other classes of land conveyance, whereby sleds or sleighs can be propelled over the ground or other surface, by means of the direct action upon the ground of a lever or levers, so hung to the body of the sled or other vehicle as to be suitably operated by a person or persons within the same, or by other power, either hand or mechanical.

BOAT LOWERING APPARATUS.—A. F. Crossman, Lieut. Commander, U. S. N.—This invention relates to a new and improved means for detaching boats from davits, and it consists in a novel manner of applying the davits to the vessel, whereby the former may be made to project out from the vessel, more or less as required, in order to prevent the boat, while being lowered, being thrown against the side of the ship by the action of the waves.

LANTERN FOR STREET RAILROAD CARS.—L. V. Badger, Chicago, Ill.—The invention is to obtain a signal lantern for street railroad cars, which may be applied to any car without difficulty, to be readily changed from one car to another, and have the advantage of being capable of adjustment in a more conspicuous place than those now used.

STOVEPIPE DAMPER.—D. Manuel, Boston, Mass.—This invention relates to an improvement in the construction of dampers for stovepipes, and consists in two castiron disks, which have flat central surfaces and are interlocked so that they lie close together when united by the pivot suspension rod of the damper; they have fluted or corrugated edges, which overlap the opposite corrugations on the opposite disks, and form concave radiators above and below, so related to each other that the smoke and heated gases can enter therein from below and receive a reverse movement which deflects them against the stovepipe, thus imparting more heat to the air in a room before finally escaping.

DRESSING MILL STONES.—Notley W. Wortham, Union Point, Ga.—This invention relates to an improved mode of dressing mill stones for grinding Indian corn and other grain, whereby there is a large gain in the grinding capacity of the stones over the ordinary methods of dressing the stones and a superior quality of meal is produced.

RAILROAD WREED CUTTER.—J. S. Boicourt, Boonsboro', Iowa.—This invention relates to an improvement in a device for cutting weeds on a railroad track and consists in attaching cutters either circular or straight to the truck of a car, which are worked by gear deriving its motion from the wheels of the car.

HEDGE TRIMMER AND CORN STALK CUTTER.—John W. Hull, Connersville, Ind.—This invention relates to an improvement in the construction of a machine for trimming hedges and cutting down the stalks of corn in the field, and consists in a frame mounted on wheels and drawn by a team, an adjustable rotary cutter being connected with gearing moved by one of the wheels for trimming the top and sides of a hedge and a detachable cutter being placed on the frame when required for cutting corn stalks as the machine travels.

LAMP CHIMNEY CLEANER.—George Lea, Shirleysburg, Pa.—This invention relates to the construction of an improvement for cleaning lamp chimneys, and consists in a curved metal rod having a serrated conical disk or cap on one end by which a bit of paper, cloth, or fibrous substance of any suitable kind for wiping, cleaning, and polishing a lamp chimney may be introduced.

TURNING SPOOLS, BOBBINS, ETC.—David Dick, Corning, N. Y.—This invention relates to a machine for turning spools, bobbins, and other wooden articles of a similar character, and has for its object rapidity of execution and an automatic operation of the several parts throughout.

COMBINED SHOVEL AND SIFTER.—D. Boynton, St. Johnsbury, Vt.—This invention relates to a combination of a fire shovel and sifter, and it consists in providing a shovel with a supplemental bottom in which a screen is inserted, the bottom being so arranged or disposed within the shovel as to admit of a separate discharge for the ashes, and the shovel provided with a lid or cover, all being arranged in such a manner that the ashes may be shoveled up and the cinders separated from it and the ashes discharged from the shovel so as to leave the cinders clean and in good condition to be placed upon the fire whenever required.

SPRING BED BOTTOM.—George Widdicombe, Grand Rapids, Mich.—This invention has for its object to furnish an improved bed bottom, simple in construction, very elastic and wholly without noise when in use.

PRESERVING EGGS, MEATS, ETC.—Charles Boize, New York City.—This invention consists in the use of argillite or argillaceous scist or slate finely powdered as a medium or means of packing or surrounding the eggs or other articles, whereby they are enabled to be preserved and maintained fresh and suitable for being transported from place to place without becoming deteriorated or rendered useless. The slate employed is susceptible of use over and over again and not in the least becoming deteriorated.

BELT-FASTENER AND TIGHTENER.—Charles O. Pike, North Leverett, Mass.—This invention relates to a device for fastening the ends of a belt, and for tightening it, and the improvement consists in a clamp for holding the ends of the belt together, and a lever arrangement fitted to the clamp for tightening the belt.

SEED-PLANTER.—William R. Mozier, Higginsville, Ill.—This invention has for its object the furnishing of an improved seed planter, so constructed as to furrow the ground and drop and cover the seed; and which, by removing the sub-dropping device, may be used to cultivate the crop.

INSIDE WINDOW-BLINDS.—S. W. Shorey, Galesburg, Ill.—This invention relates to a method of constructing and operating inside blinds for the windows of dwelling-houses and public buildings, and it consists in the peculiar manner in which the slats forming the blind are connected together, and the manner in which they are closed and secured in a closed position.

EXCAVATOR.—B. T. Stowell, Quincy, Ill.—This invention relates to a new method of constructing excavators and ditching machines.

SAIL SAFE.—F. G. Oehme, Plymouth, Mass.—This invention has for its object to prevent the capsizing of sail-boats, by securing the sail with an apparatus which may be set so as to release the sail when the pressure has reached the amount that the sail and boat can bear.

CULTIVATOR.—Henry Howe, Oneonta, N. Y.—This invention has for its object to improve the construction of cultivators so as to make them more convenient in operation.

EQUILIBRIUM BALANCE FOR SAFETY-VALVES.—Virgil D. Green, Watertown, Wis.—The object of this invention is to overcome the rigidity of the spring in the spring balances in common use.

WASHING-MACHINE.—Thomas Q. Frost, Indian River, N. Y.—This invention relates to a machine for cleansing or purifying linen and other clothes of