

## New Inventions.

**Devlin's Lubricating Liquid.**

The lubricating material for machinery, invented by Mr. Devlin, of Reading, Pa., and patented by him in this country, has recently been patented in England, where he was on a visit last year. It is patented in the name of a merchant in Manchester, and the composition has been published in foreign journals. It consists of four lbs. of india rubber dissolved in turpentine, 10 lbs. of soda, 1 lb. of glue, 10 gallons of oil and 10 gallons of water. The alkali is dissolved in the water, then the oil is added, all stirred well, and when fully incorporated together, the dissolved india rubber is added and well stirred; after this the whole may be stored away in bottles or dishes for use. The principal ingredient in this is the india rubber, which enables the mixture to wear a long time, and affords a finer anti-friction material. There was an anti-friction grease manufactured in this city last year, from resin oil coagulated with fine dry burned lime. It was introduced into this city by an Irishman from Belfast, and was very cheap for heavy machinery. We have not heard of it for some time.

**Employment of Gutta Percha in Medicine.**

A late translation of a French paper states that M. Nytterhaven has been successful in preparing plasters from gutta percha for medical service. They are made by dissolving the substance in sulphuret of carbon, and are said by the French to be very serviceable in affections of the voice and of the liver, &c. We give the story for what it is worth. Will not the regular faculty on this side of the water try the experiments and give us the results.—N. Y. Tribune.

[Plasters of dissolved gutta percha have been in use on this side of the water among the "regular faculty" for two years. The discovery is an American one and belongs to Cambridge, we believe. We had thought every body on this side of the water was aware of this fact. Chloroform is employed to dissolve the gutta percha—the solution is first rate for cuts. If a printer gets the points of his fingers cut, or the cuticle worn with new type, let him go to a druggist and get them pointed with this gutta percha liquid; no sooner is it applied to the fingers than they are covered with a thin white hard, yet flexible firmly adhering skin—the chloroform evaporates in an instant, and leaves the gutta percha behind. Gun cotton dissolved in chloroform makes a good plaster also, but not like gutta percha for the hands of a working man.

**Improved Power Loom.**

The Norwich (Eng.) Mercury states that Mr. Richard Shaw, son of a prominent manufacturer in Norwich, has succeeded in accomplishing an invention which gives the power to weave by hand two perfect pieces of goods, however varied in color, complicated in pattern, or fine in texture, by the same throw of the shuttle, and extremely little increase of labor beyond what is required in weaving a single piece. Several attempts have, we believe, been made to accomplish the same end, and the great difficulty experienced has been to obtain the selvages of the separate pieces.

[This is a very singular paragraph; except in the weaving of what are termed tapestry carpets, (the pattern printed on the warp) where the weft is all one color, we cannot conceive how one shuttle can weave two webs of different patterns. If the above means that one throw can operate two shuttles to weave two webs, then it is plain, but the invention is not new. Five different webs can be woven with one throw, all the shuttles moving at once. Coach lace, tape, lamp-wick, &c., are woven in this manner. Whatever people may say to the contrary, it requires just about double the power to weave two webs as it does to weave one.

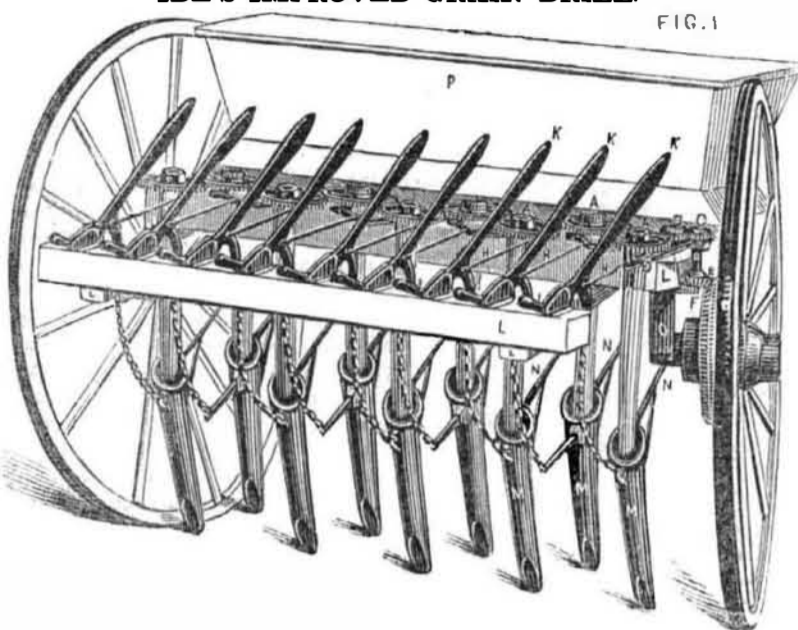
**Southern Shoes.**

Several small factories for making boots and shoes have been established in Georgia and South Carolina.

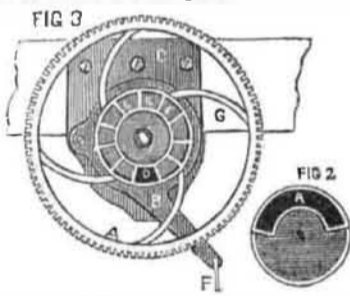
**Improved Augur.**

Mr. J. E. Larkin, of Ballston Spa, Saratoga County, N. Y., has made a good improvement in the way of fastening the stock of the augur, for which he has taken measures to secure a patent. It consists in securing the stock of the augur in the handle, by having a hole drilled through and a thread cut on the end of the shank, which passes into the socket in the handle; and the handle is made in two halves or sections, the one with a spindle in it, the

said spindle having two screws cut on it and the whole fitting into the other section of the handle, to form a metal ferule round it—the spindle passing through and screwing into a thread, like a nut, at the other end of the handle, and into the thread of the hole in the shank likewise, whereby the augur is screwed up perfectly immovable, (a necessary requisite), and it can be taken out at any moment, like the tool out of a bit-stock. We will publish an engraving of it in a few weeks.

**IDE'S IMPROVED GRAIN DRILL.**

The improvement on this Grain Drill is in the method of distributing the grain, and in respect to its operative qualities (the first thing to which attention should be directed,) we would state that a number have been constructed, and all of them, we are informed, have worked to perfection. The inventor is Mr. Samuel Ide, of Millville, Orleans Co., N. Y., who has taken measures to secure a patent for his improvement. Fig. 1 is a perspective view, with one of the wheels thrown out of line. Figures 3 and 4 are plan views. The same letters refer to like parts.



L L L L is the frame; P is the grain box, raised to show the distributors; O is a crank-shaped cast arm, bolted to the centre cross-beam of the frame; A A A are the seed wheels or distributors, which turn on plates bolted to

said beam in a zig-zag form, to distribute in two rows; F E is bevel gearing; F is bolted to the carrying wheel, E attached to the shaft, D, at the upper end of which shaft is attached the wheel, C, which may be taken off, and a wheel larger or smaller put on, to vary the quantity of grain to be sown to the acre. B is a movable wheel to connect the wheel, C, with the seed wheels. A lever is attached to the wheel, B, to put it in or out of gear with the wheel C. M M M are the hollow teeth; N N N is the beams attached to the shanks of the teeth, and hinged to the frame. The chains are attached to the teeth and to the levers, K K K. The rods, H H H, connect the levers and movable plates, B, fig. 3, in raising the teeth by the levers, the grain is shut off. I I are handles to the catches to hold the levers when the teeth are raised. A, fig. 3, is a seed wheel; G is the cross beam to which the plate C is bolted; B is the movable plate, when it is drawn out or swung around by the rod at F, the hole, D, is carried outside of the spaces, E E E, in the seed wheel, and stops that wheel from distributing. A, fig. 2, is the hole through which the grain passes from the box into the seed wheels at E E E, fig. 3, and is carried around to the hole, D, where it passes through the plates into the tubes.

**Mending Cast Iron Vessels by Fusion.**

The Washington Republic thus refers to a package lately brought home by Commodore Geisinger, for the Patent Office:

"Van Braam, and more recent travellers having often referred to without sufficiently describing, a method in universal use in China, of rendering cracked cast iron vessels perfectly sound by means of fused iron, the Commissioner took advantage of an offer made by the Hon. J. Balestier, U. S. Envoy to Eastern Asia, to furnish any information on the arts, &c., of the East. Mr. B. has sent by Com. G. a vessel repaired in his presence, with specimens of the materials and implements employed, an account of which will appear in the next report."

**American Water Pipes.**

It is stated in the latest intelligence received from the Sandwich Islands, that one hundred tons of water pipes, cement and other appliances for conducting pure water from the valley into the city of Honolulu, had been received by a recent arrival from Boston.

**Good Plan for Fertilizing Land.**

Sow three bushels of Indian corn broadcast, and when it is 18 inches above the ground plow it in. This is said to be a better plan than plowing in clover.

**Improved Rice Cleaner.**

Mr. Peter McKinlay, of Charleston, S. C., has made a good improvement on an apparatus for cleaning rice, for which he has taken measures to secure a patent. The rice is placed in conical chambers, and there is a rod and beetle passing into each, which receive an up and down motion to agitate and rub the grains of rice upon one another, to remove the fine hull completely. The grain, after being thus agitated for some time, is let out and winnowed from the hulls, when it appears beautiful and clean. The machinery is exceedingly simple.

**Improved Railroad Sleepers and Chairs.**

Mr. H. H. May, of Galesburg, Illinois, has invented a new plan for laying down and fastening rails, for which he has taken measures to secure a patent. He constructs the sleepers of cast metal, and they consist of a broad solid base, upright post, and cross-tie—each post having a cross-tie to be coupled in the middle of the track by its opposite neighbor. On the head of the post, is a recess or chair, to receive the rail and by turning it slightly out of line with its fellow, the rail is firmly secured without a spike or bolt.

Wooden Pavements are about to be abandoned in Boston, on account of accidents to horses.

**To our Subscribers.**

Friends, our next Volume will commence on the 21st of next month, and we merely call your attention to this at present, with the hope of shaking your hands on our new subscription term. With many of our subscribers we have long been on terms of more than subscribing friendship, and we trust it will be long before our friendship will be severed. The Scientific American has nearly completed its Fifth Volume, and we need not say how we have been enabled by the kindness of subscribers and the friends of useful information, to carry it to the highest niche of American weekly Scientific periodicals. It is quoted as authority, in matters of science and art, by the first Journals at home and abroad. With science we have endeavored to combine the truly practical, conveying our ideas in simple, but clear language. Our long acquaintance with mechanical and manufacturing operations enables us to speak of things, as they are, and comment upon them as they should be. The deep theoretical views of book authors, we endeavor to render useful by making them practical. We hope every friend of progress in the Arts and Sciences, and those favorable to the dissemination of useful knowledge, will help to extend our circulation over a still wider field during our next volume. Will every subscriber endeavor to get a neighbor to subscribe for our next Volume? For clubs, our terms are indeed favorable, and even to single subscribers, our Volume forms a very cheap book.

**Carbon, or Coal.**

Carbon exists in nature, in various forms, and is the principle source of artificial light and heat. It is found crystalized in the diamond, and graphite, and in the less pure anthracite and other coals. The combinations of carbon and oxygen are various; some anthracite coal contains 95 per cent. of carbon; black lead contains from 88 to 95 per cent., and is sold in London at ten dollars per pound. There is good black lead in Pennsylvania. Coke is the residue of bituminous coal burned in ovens, or retorts in gas works. It is nearly pure carbon and gives a great deal of heat; it is used on all the locomotives in Britain, and would be far better than wood with us, if it could be used at as little expense. Hard coke has a metallic appearance, and we believe the base of it to be a metal. It is an excellent conductor of electricity, and serves instead of platinum for a galvanic arrangement. Zinc and coke plates make a good galvanic battery.

Carbonic oxide and carbonic acid, are formed by the union of carbon and oxygen. Carbonic oxide is expressed thus, (CO); carbonic acid, (CO<sub>2</sub>). Carbonic oxide is produced in furnaces where there is not a sufficient supply of air; this is the cause of a great loss of heat, for the heat is always in proportion to the quantity of oxygen consumed. It is carbonic oxide which is often seen burning at the tops of some chimneys with a blue flame—this is a sign that there is a loss of heat in the furnace, the only remedy is to allow a small supply of air to enter the furnace, which may be regulated by a valve for that purpose, to allow the air to pass over the hottest part of the fire into the back of it, to mix with the carbonic oxide and form carbonic acid, which gives out twice as much heat. A great deal of heat is lost in some furnaces for a lack of this knowledge.

**Wooden Cornices on Houses.**

It is quite a common style of architecture among us to ornament the eaves and cornices of our buildings with wooden carvings of gingerbread texture. This style of ornament, on otherwise decent brick and stone houses, must be very ancient, seeing it is so much prized. At any rate it must have existed long anterior to the reign of Beauty in Greece, or that of Grace in Rome.

**Notice.**

Next week we shall publish Hubbell's Solar Magnetic Engine. We have the engravings all on hand, and to a great many of our readers, this will be a curious and interesting subject.

In our list of Patent Claims for this week, four of the number granted were applied for through the "Scientific American" Patent Agency.