

take so much power to work them as the old air-pump. The water used in the boiler is always pure; it requires less fuel to evaporate, and it obviates the formation of incrustations. A perfect workable surface condenser is one of the grand improvements required for steamships; have we got it here? is the question; those who have used it say it is the very condenser long sought for.

This condenser gives a facility for bracing so that it can be made of very light materials. The outside of the condenser case has only to support the weight of water in the vessel, and the atmosphere is perfectly excluded.—The sections of the condenser tubes can easily be taken apart and any of them easily repaired or cleaned when required. Larger tubes can be employed in this condenser than in Hall's, and this is a great advantage.

We could say much more upon the subject of condensers, but we have not room at present, and as we intend to present, in a short time, other views of this excellent condenser, as applied to ocean steamers, we will defer further comments until then. This condenser is shown as adapted and applied to stationary engines and river boats, the one for the marine engine will be arranged in a different manner, and will have an Evaporator attached to provide any amount of fresh water required for any purpose. For high pressure engines this condenser will involve some extra expense of machinery, but it will save it all in fuel. The inventor has had long experience as an engineer on the southern waters, and he believes it will operate perfectly on western boats.

More information may be obtained of the inventor and patentee, James M. Miller, No. 9 Laight st., this city.

## MISCELLANEOUS.

### Wool from Wood.

Not far from Breslau, in Silesia, in a demesne called Humboldt's Meadow, there are two establishments, in one of which the leaves of the pine-tree are converted into a species of wool or cotton, and in the other the waters left from the manufacture of this substance serve to supply medicated baths for the use of sick persons. These establishments were both set on foot under the superintendence of a forest inspector, M. de Pannowitz, the inventor of a chemical process for extracting from long and slender pine leaves a very fine fibrous substance, which he calls "wood wool," on account of its possessing the same felting and spinning properties as ordinary wool.

The circular leaves of pines, firs, and other coniferous trees, are composed of clusters of extremely delicate, adhesive fibres, surrounding and holding together a resinous substance. This resinous substance may be dissolved by boiling, and by the employment of certain reagents; it then becomes easy to separate the fibres from each other, to clean them, and remove any extraneous matter. By this treatment the wooly material acquires a greater or less degree of fineness. The pine may even be stripped when quite young; for if the verticles or whorls at the end of the branches are left, the tree will continue to grow. The stripping off of the leaves takes place every two years.

The use to which this wood-wool was first applied was to substitute it for cotton or woolen wadding in quilted blankets. In the year 1842, the hospital at Vienna purchased five hundred of these blankets, and after making a trial of them for several years, sent an order for a further supply. It has been observed that when the pine-tree wool is employed, the beds are quite free from any sort of parasitical insects, and it diffuses a very agreeable and salutary fragrance. Furniture in which this material is employed is free from moths. Its cost is three times less than horse-hair, and the most skillful upholsterer could not distinguish an article stuffed with this substance from one stuffed with horse-hair. This wool may be spun and woven, the finest quality yielding a thread very similar to flax, and quite as strong. When combed, spun, and woven (?) like cloth, it may be employed for carpets, saddle-cloths, &c., and

combined with a web of linen or calico, it may be made up into coverlets.

The liquid residuum resulting from the boiling of the leaves, has a most salutary influence when used as a bath. The reputation of the baths has increased since their establishment nine years ago. The liquid residuum may, moreover, be concentrated, and sent in close jars for use in private houses.

The membranous substance obtained by filtration, when the fibre is washed, is put up in the shape of bricks and dried, when it may be used as fuel, and produces a very considerable quantity of gas for lighting purposes. About a thousand cwt. of wool leaves a quantity of fuel equal in value to more than 180 cube feet of pine-wood.—[London Mechanics' Magazine.

### Rinds of Fruit Indigestible.

The fact cannot be too strongly impressed upon the public. It applies to all fruit without exception, and includes also the pellicle or skin of kernels and nuts of all kinds. The edible part of fruit is particularly delicate, and liable to rapid decomposition if exposed to the atmosphere; it is, therefore, a provision of nature to place a strong and impervious coating over it, as a protection against accident and to prevent insect enemies from destroying the seed within. The skin of all the plum tribe is wonderfully strong, compared with its substance, and resists the action of water and other solvents in a remarkable manner. If not thoroughly masticated before taken into the stomach, the rind of plums is rarely, if ever, dissolved by the gastric juice. In some cases pieces of it adhere to the coats of the stomach, the same as wet paper clings to the body, causing sickness and other inconvenience. Dried raisins and currants are particularly included in these remarks, showing the best reasons for placing the fruit upon the chopping board with the suet in making a pudding of them; for if a dried currant passes into the stomach whole, it is never digested at all. When horses eat oats or beans that have not been through a crushing mill, much of this food is swallowed whole, and, in this state, being perfectly indigestible, the husk or pellicle resisting the solvents of the stomach, there is so much lost to nutrition. Birds being destitute of teeth, are provided with the apparatus for grinding their seed, namely, with the gizzard, through which the seed passes, and is crushed prior to digestion. The peels of apples and pears should always be cast away. Oranges we need not mention, as this is always done. Orleans, green gages, damsons, and all plumbs, should be carefully skinned, if eaten raw; and it put into tarts they should be crushed before cooking. Nuts are as indigestible as we could desire, if the brown skin be not removed or blanched, as almonds are generally treated.

Peaches should be denuded of their skins before they are eaten, if any person wishes to know how to eat one, let him watch a monkey at the operation.

### Meteoric Phenomenon at Texas.

An anonymous correspondent of the Galveston Journal writes from Brazoria, Texas, under date of the 18th inst. :—

"I send you an account of a remarkable phenomenon, which was seen here on Monday night (16th) last. It was a meteor of a splendor and beauty of appearance seldom witnessed. About half past 10 o'clock in the evening it appeared in the east, and I think 50° above the horizon. To the observer it seemed to be about the size of the sun's disc, and very brilliant. The whole heavens were lighted up with its radiance, and the most minute objects were as plainly visible as in the light of day. Its path was across the heavens from east to west, passing 20° south of the zenith, to about 40° above the western horizon, where it burst into ten thousand fragments. Its passage occupied apparently four or five seconds. As it burst, the fragments of it, like sparks from a sky-rocket, appeared to fall for about a second, and then disappeared. Immediately after it burst there appeared a pale blue light, which traversed the path of the meteor to the place where it first became visible, and there disappeared. The whole was attended with no noise.

[This, in our opinion, is too meteoric an account to give full credence as a fact.

### The Cholera.

J. X. Chaubert, M. D., of this city, a very distinguished personage, has published a pamphlet containing his observations of the origin, treatment, and cure of Asiatic cholera, and cholera morbus, which are the result of forty-five years' experience in Asia, Europe, and America. Cholera, he considers, is a fever caused by the poison of a small green insect diffused through the atmosphere, invisible to the naked eye, but easily seen under the action of a powerful microscope. The insect, he states, is inhaled, and by fixing itself into the mucous membrane of the stomach and lungs, produces inflammation, which is transmitted to the liver, through the duct leading from the stomach to the gall bladder, and extending itself to the spine, brain, and heart, through the irritation of the nerves, thus producing all the symptoms of cholera. To discover whether such an insect really exists, the following is the plan to pursue:—bare the arm to the shoulder, and hold it over the head for some time, then examine it with a powerful microscope, and if millions of minute green insects are observed on it, then, for a certainty, cholera is there; if not, no cholera is there. These insects, he believes, are produced by the exhalations of malaria, &c., and are carried by winds from place to place. This is a very different theory from that of Dr. Jackson, who believes cholera to be a geological disease.

M. Chaubert lays down a great number of predisposing causes of this disease, any of which will account for cholera in peculiar seasons, without the green insect theory. He has discovered a method for the successful treatment of cholera, which he is going to publish as soon as the governments of various nations have compensated him for the same. M. Chaubert has himself been very successful in the treatment of cholera; he says the practice of physicians in this country has been to dose with calomel, and calomel and opium, and he believes the grave does not owe half so many of its tenants to cholera as to malpractice. This may be, and no doubt he has had good opportunities of judging, but we have information from a very experienced physician of Cincinnati, who asserts that no disease yields more kindly to him than cholera, when taken at the stage of its premonitory symptoms.

### Scythe Making in New Hampshire.

Near Wilmot, N. H., is the New London scythe factory village, where an extensive business in the manufacture of scythes is carried on by Messrs. Phillips, Messer, Colby & Co. Their works are located on the Blackwater river, just below the outlet of Pleasant Pond. They are furnished with six trip-hammers, and other machinery suitable for turning off a large amount of work with despatch.

The works, when in full operation, turn out from twelve to fourteen dozen of scythes per day, and produce annually about three thousand dozen, most of which are consumed in the New England States. In their manufacture, from thirty to forty tons of iron, one hundred and fifty tons of hard coal, five or six thousand bushels of charcoal, and twenty or thirty tons of grindstones are consumed.

### The First Locomotive in America.

This wonderful machine is not dead yet, a correspondent of the "Philadelphia Ledger" sends that paper the following account of this veteran war-horse of the iron track:—

"Your readers are doubtless aware of the fact, that the first locomotive seen upon this continent was imported from Liverpool; however, many of them, perhaps, have forgotten that that locomotive is not entirely extinct, but remains a curiosity. The L. S. R. R. Co. recently erected a very beautiful machine shop, which is under the superintendence of Mr. Phleger, a practical machinist, and through his direction this ancient locomotive has been repaired. This afternoon she took her place upon the L. S. R. R., and at 2 o'clock started with the passenger train, for Port Clinton, did her work well, and returned at 7. This locomotive is truly a curiosity, from the fact of its antiquity, and its singular arrangement of machinery. She is once more to be seen winding her way through the mountains, upon the

banks of the Little Schuylkill, where the whistle of the first locomotive resounded upon the continent of America, and that from the Catawissa, as she is no styled.

Tamaqua, Schuylkill Co., Pa."

### Death of Vanderlyn, the Artist.

A pioneer in American art, and cotemporary of Stuart, Trumbull, and Allston, has died at a ripe old age. John Vanderlyn was born in Kingston, Ulster Co., N. Y., in October, 1776, and died there on Thursday last week. Having early developed a taste for painting, Aaron Burr became his Mæcenas, and sent him to this city to study with Stuart, and afterwards he went to Europe in 1796, that period until 1815, he resided mostly at Paris, Rome and other places of interest, studying diligently and improving rapidly. While abroad, he painted his "Marius Amid the Ruins of Carthage," and "Ariande," which attracted great attention. Upon his return, he was principally engaged in portrait painting, but produced panoramas of Paris, Athens, Mexico and Versailles, for exhibition in the old New York Rotunda. In 1839 he went to Paris, where he painted the "Landing of Columbus," by order of Congress. Of his portraits, those of Col. Burr, Judge Benson, President Madison, Monroe, and Taylor; Calhoun, Dewitt Clinton, &c., are well known. He died poor, having involved himself by the building of the Rotunda, from which he never was able to extricate himself.

Vanderlyn built the Rotunda in the Park, for a panoramic Hall. It was afterwards the post office, and is now city property.

### To Prepare Seed to Obtain Crops without Manure.

About nine months ago there were some extracts published in the daily papers, as items of foreign news, wherein it was stated that a discovery had been made in France, whereby seed could be prepared so as to obviate the practice of manuring lands, crops being obtained thereby equally as good as by the old plans. We have had some inquiries about this discovery, our readers supposing that if there was anything in it we would know something about it. We can only say that Liebig has obtained good results by treating grains in the following manner: the seeds were softened by being steeped in liquid manure, then sprinkled over in a moist state with a mixture of 20 per cent. of bones in fine powder, and one of plaster of Paris; in sprinkling water over these, and sifting more bone powder and lime over them the second time, the layer of manure which enveloped the seeds was more durable. The seeds were then dried in the air and sown in the usual manner. This process (adds Liebig) is not perhaps sufficiently simple to be made use of on a large scale, and is replaced advantageously by the use of a good manure of plaster of bones applied in the usual way.

### To Bronze Brass, Etc.

To 6 lbs. of muriatic acid add 2 lbs. of oxide of iron, and 1 lb. of yellow arsenic; mix all well together, and let it stand for two days, frequently shaking it in the meantime, when it is fit for use; whatever may be the article which requires bronzing, let it be perfectly cleaned and free from grease, immerse it into the above solution and let it stand for three hours, or rather till it will turn entirely black; then wash the spirits off and dry it in sawdust, which has been found the best; after the article is perfectly dry, apply to it some wet black, the same as used for stoves, and then shine it up with some dry black-lead and brush, and it is fit for lacquering.

### Sulphate of Lead to be used as a Substitute for White Lead in Painting.

To 100 parts of litharge add 30 parts of salt, and let it stand five or six days at a temperature of from 59° to 68° Fah.; then add 80 to 90 parts of concentrated commercial sulphuric acid and 30 parts of water; keep at a temperature of 177° to 194° Fah., for three hours; distil off the muriatic acid; the sulphate of lead remains, which should be well washed and dried for use.

### New York Mechanics' Institute.

The classes of this institution will be formed on Monday evening, Oct. 4th. The rooms are at No. 1 Bowery. Drawing and mathematics will be taught to those young mechanics who have the spirit to progress and rise.