



For the Scientific American.
Patent Laws.—Subjects of Patents.

In my previous article page 304, I promised to discuss in this, those subjects which *should be protected by patent*. We know that we shall be found on opposite grounds to some decisions of the Patent Office, and Judge Cranch likewise. In reference to the opinions and decisions of the most eminent of our Jurists, we have often been forcibly impressed with a striking passage in the book of Job, "great men are not always wise."

There is no dispute about new mechanical combinations—these have always been considered the subjects of patents. The only difference of opinion on this point, is the similarity of alleged new combinations, to old ones. When there is a doubt about this, and there must be many, the Patent Office should grant a patent, and allow it to stand upon its merits. A fair Jury decision upon the evidence of competent witnesses, gives the best satisfaction to our law-loving people, and it would be well to have a reform in our Patent Laws, whereby a patent might be repealed, after it was fairly contested. No one should find fault with the granting a patent to Mr. Croker for a nail made of Muntz's metal—it is a new manufacture, but many things of as new a manufacture have been rejected, and according to the decision of Judge Cranch page 802, P. O. Report 1847, we find ourselves fairly pinioned on a *dead point*. He says:

"A new effect from old means will not justify a patent." It is our opinion that a new effect from old means, if a new manufacture is produced, should justify a patent. It is the great fault with some analytic minds, that they sometimes pulverize the spirit of law as unscientifically as a miller does his wheat, by setting his upper stone too close. Fine flour is produced, but woe to the good housewife whose luck it is to get it. It has been nearly the uniform custom of the Patent Office to refuse patents for mere new articles of manufacture made from old substances. It will save many some expense to know this. The Muntz metal nail, however, is an exception, and it is very likely that another patent might be secured for Muntz's Improved Metal, but we will give this to the public as a public benefit. The composition consists of 56 parts copper 40 3-4 zinc, and 3 3-4 lead. Mr. George Frederick Muntz, M. P. secured a patent for this in 1847 and as this is an improved alloy Mr. Muntz says "the lead acts a very important part in the composition."

It may be considered right in the Patent Office to refuse patents for alleged new manufactures or improvements in them, and to grant patents only for the means of producing those improvements, such as to refuse a patent for a wheel made of cast iron, suppose such a thing had never been done before, upon the ground of "no patent for a new application of an old substance," but the great wisdom of our Patent laws would grant a patent for the said wheel with a knob on a particular spot, or with one spoke of wood, another of iron, and another of cheese, it may be. We find no fault with this conduct if legal decisions are the fundamental rule of their action. It is our purpose to show that their rule of action has been erroneous. The principle of our Patent laws—the fit subjects of patents, is exclusively English, as embraced in section 12 of the Patent Laws, approved July 4th, 1836, which provided for the contesting of the validity of a patent in "any judicial court," where English decisions are looked upon as gospel and form the rule and guide of our jurists, but of which there are some of them not much better informed than they are about the divine revelation. For example, if a person was to apply for a patent for smelting iron by anthracite coal, using no new contrivance but only substituting it for bituminous, or charcoal, does any person think that according to the spirit of decision

in our Patent Office, such a patent would be granted? It would not. But according to the spirit of the Patent Protection, we have the high authority of Lord Chief Justice Tindal, Webster's Reports, giving the opinion of the Court in sustaining such a patent although it was nothing more than the mere substitution of one kind of fuel for another. A new manufacture of iron was the result. The very first Patent law made, was by Act James I. granting exclusive right for *any manner* of manufacture for 14 years. Our Patent laws are based upon this principle, granting the patent to the first inventor. Now a mere manufacture is "something made by Art," and it also embraces the principle of "making anything by art." This is the construction put upon it by Mr. Justice Heath in the case of *Watt & Bolton vs. Bull*. The Justice in that opinion says, "I approve of the term manufacture." A new kind of elastic or other substance, such as a manufacture of gutta percha, or the introduction of the bark of a tree, to produce a new manufacture, is embraced in that decision, and is therefore the legal subject of a patent. We have no better evidence of this than the opinion of Lord Chief Justice Tindal in another case, namely that of Mr. Muntz, whose metal—and the nail of which we have noticed. The Chief Justice stated that "it did not signify whether the compound of copper and zinc was new in itself or not, the law only required that it should be new as a sheathing metal." The Muntz metal nail then of Mr. Croker is the valid subject of a patent, upon this high ground. Our authorities should think of these things before an application for a patent is rejected upon such slight grounds as they sometimes are and when there is no interference.

Again, a Mr. Forsyth obtained a patent for using percussion powder as priming for firearms. He only claimed the application of it for this purpose, not the lock, or manner of using it. This patent was sustained by the verdict of a jury in the Court of King's Bench, Justice Abbot presiding. This is another fact for our Patent authorities to reflect upon.—We might multiply case upon case to show that the decisions of our Patent Office Court are distinguished by a narrow mindedness not strictly honorable with our professions as a people of devotion to improvements in the arts and encouragement to inventors.

JUNIUS REDIVIVUS.

A New Discovery to Separate Potatoes of Different Qualities.

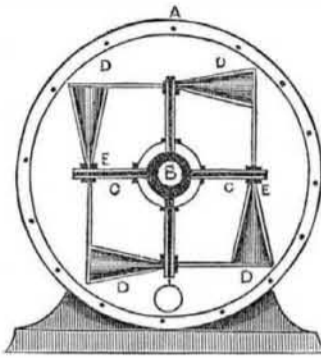
We learn from the London Patent Journal, (Barlow and Payne) that a Mr. James Anderson of Glasgow, North Britain, has secured a patent to separate potatoes of different qualities. According to actual experiment the patentee found that a potatoe containing 20 per cent of solid nutriment, was about the specific gravity of 1,080, that is taking distilled water at 52° Fah. as a unity; and will, of course, sink in water or other fluid of less than that density, or indicating a density of less than 16 according to Twaddell; while the same root, containing nutritious properties to the extent of 30 per cent., is of a specific gravity of 1,120, or equivalent to a liquid indicating a density of 24° Twaddell, and will of course, sink in a liquid of less specific gravity. Now, taking this a rule, which the patentee affirms he has almost invariably found correct, he is enabled to divide the vegetables into two, three and even more distinctive classes, according to the nutritious qualities they possess. For this purpose he places the vegetables in a pool, or vessel containing water or other fluid, brought to the density suited to the quality of the article. This is easily effected by adding salt, or a little clay, or earthy matter in solution, when the vegetables are to be immersed therein; and those which are of less specific gravity will float on the surface, and the heavier bodies preponderating, will sink to the bottom, when they may be collected respectively; these two qualities may be further subjected to immersion in liquids of greater and less specific gravity, according to their qualities, and by that means still further separate them, than had been effected by the previous operation, and which he finds of great advantage, whether taken in a commercial or manufacturing point of view, as it at

once not only ascertains the more valuable article, but also determines for the manufacturer the best quality that may suit each individual purpose in which he may employ the same.

History of the Rotary Engine.

Prepared expressly for the Scientific American.

FIG. 64.



VAN RATHEAR'S ROTARY ENGINE.

This is a rotary engine invented a few years ago by a German C. E., named Anthony B. Von Rathear, which he called a universal wheel.

This is a sectional elevation showing its interior construction. A, is an outer tight cylindrical case, within which revolves the hollow shaft B, passing through the centre of the case. C C, are hollow arms which carry upon their outer extremities the steam chambers or vessels D D, which are of a conical form and from which the steam escapes into the cylindrical case—the reaction against the surfaces of the cones at E, being the propelling power. The cylindrical case was exhausted by being connected to a condenser. The object of this rotary was stated to be the production of a rotary power engine by the reaction of the expansive force of steam—the steam rushing into an exhausted cylinder within which the apparatus for receiving the reactive force revolves.

It is curious to see what absurd views some men have of the application of steam to produce no result at all that can be defended upon the well known principles. The main principle of this invention, appears to be the same as Hero's old engine, the exhausting arms eject the steam into an exhausting vessel instead of exhausting into the atmosphere. It might be very ingenious to shoot a cannon ball at one object, in order to strike another by its rebound, like striking down nine pins, but we would certainly prefer to see the mark struck by the first percussion.

Portable Provisions for Travellers and Hunters.

Take a leg of beef, veal, venison, or any other young meat, because old meat will not so easily jelly, pare off all the fat, in which there is no nutriment, and of the lean make a very strong broth, after the usual manner, by boiling the meat to rags till all the goodness be out. After skimming off what fat remains, pour the broth into a large stewpan well tinned, and let it simmer over a gentle even fire till it becomes a thick jelly. Then take it off and set it over a boiling water, which is an even heat, and not so apt to burn the broth to the vessel. Over that let it be evaporated, stirring it very often, till it be reduced when cold into a substance like glue. Then cut it into small pieces, laying them single in the cold, and they may dry the sooner. When the pieces are perfectly dry put them into a canister, and they will be good, if kept dry, a whole East India voyage.

The glue is so strong that 2 or 3 drachms dissolved in boiling water, with a little salt will make a half a pint of good broth; and if you should be faint with fasting or fatigue, let a small piece of this glue melt in your mouth and you will find yourself surprisingly refreshed.

One pound of this cookery should keep a man in good heart above a month; and it is not only nourishing, but likewise very wholesome. Particularly it is good against fluxes, which woodsmen are very liable to, by lying too much near the moist ground, and guzzling to much cold water. But, as it will be only used now and then, in times of scarcity, when

game is wanting, two pounds of it will be enough for a journey of six months.

But this broth will be still more heartening if you thicken every mess with half a spoonful of rockabominy, which is nothing but Indian corn parched without burning and reduced to powder. The fire drives out all the watery parts of the corn, leaving the strength of it behind, and this being very dry, becomes much lighter for carriage, and less liable to be spoiled by the moist of the air.

Thus half a dozen pounds of this sprightly bread will sustain a man for as many months provided he husband it well, and always spare it when he meets with venison, which may be very safely eaten without any bread at all.

Cure for Cholera.

Dr. Bird of Chicago, Illinois, we see stated in a number of exchanges, has discovered that sulphur is a complete curative of Cholera.—3 or 4 grains of sulphur is stated to cure the patient even after a collapse and when in the worst stages. Pills made of one part charcoal and 4 parts sulphur are recommended by Dr. Bird, and in any locality where the disease is prevalent, it is a proper precaution to take one of the pills in the morning, and for those attacked, to take one every two hours until relief is found.

Parsnips.

The cultivation of the parsnip, as food for stock, has not been generally tested. It is a hardy plant, and the yield, under good cultivation, is very large. This root is sweet and nutritious, and it is doubtless one of the most valuable for stock. In the Island of Guernsey, England, this root is cultivated very extensively for all kinds of stock, and with excellent success. It would be well if this root was more cultivated among us than it is. Every mechanic who has a small garden should not neglect to plant some parsnips.

LITERARY NOTICES.

The Scalpel.

No. 3, of this useful and ably edited Journal of Health, is filled with valuable matter which is of interest to every person. "Atmospheric Electricity, Hydropathy and Homeopathy impartially appreciated," are capital articles. The other articles are equally good.

Pictorial National Library for June contains a likeness and biography of Gen. Scott, besides several other illustrated scenes. The contents are as usual instructing and worth a careful perusal. The June number completes the volume. Published by Wm. Simonds & Co Boston. G. W. Andrews, Agent, New York City.



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