ISSUED FROM THE UNITED STATES PATENT OFFICE

Reported Officially for the Scientific American.

PATENTEES, READ THIS.

The new Patent Laws which went into force on the 2d of March last, authorized the Commissioner of Patents to have all the specifications which form part of the Letters Patent printed.

This is a wise provision, and it renders the documents much handsomer than the old system of engrossing them on parchment; besides, in passing before the printer and proof reader, the clerical errors, which were often made by the copyist, are mostly obviated, thus rendering the patent more likely to be correct.

But to afford the printer and proof reader an opportunity to do their work properly, the Patent Office is obliged to withhold the Letters Patent after granting them, from *four to six weeks* after the claims are published in the SCIENTIFIC AMERICAN.

*** Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the SCIENTIFIC AMERICAN, New York.

NOTICE—LIST OF PATENT CLAIMS.

At the time of going to press the usual weekly list of patent claims had not arrived from Washington. In serving a great community with such information regularly the officers of the Patent Office should be exceedingly careful not to cause such a disappointment.

RECENT AMERICAN INVENTIONS.

Iron Pavements.—The object of this invention is to produce a pavement which will present a smooth and even surface for the wheels of vehicles and which at the same time will prevent the slipping of the horses' feet and allow of being readily cleared from snow and ice. It consists in the employment of movable teeth or keys projecting through openings or slots in flat metal surfaces, which form the pavement, said teeth or keys being balanced by weights or springs or any other desirable means, in such a manner that they yield when exposed to the pressure of a flat surface, and that they prevent the slipping of the horses' feet when not depressed; also in forming the pavement out of two plates, each being gibbed in such a manner that channels are provided to carry off the water and the dirt, or out of one plate provided with suitable ribs to form such channels, and that steam. water or hot air can be introduced for the purpose of melting snow or ice, or for any other purpose desired, The inventor of this pavement is Lucius Stebbins, of New York city.

Improved Canteen.—The object of this invention is to produce a canteen which is useful not only for the purpose of carrying water and other liquids, but can be readily and easily converted into an apparatus for boiling and cooking purposes. The invention consists in making the canteen of such form as to admit of a large opening being made in the top, for the purpose of introducing any article to be cooked, and for the convenience of cleaning; it also consists in attaching legs to the canteen in such a manner that when supported thereon it can be used for boiling or cooking, or the legs can be folded up, and the canteen made so as not to occupy more room than the ordinary canteen, and be as convenient for carrying about on the person; it further consists in a provision for carrying a cup and candlestick. Samuel Herbert, of New York city, is the inventor.

NOTES ON FOREIGN INVENTIONS.

Flannel.—A patent has been taken out by J. Thomson Pagan and T. B. Williams, of Rochdale, England, for flannel intended for shirts, dressing gowns, &c., made as follows:—Cotton and wool in about equal proportions by weight are first carded together and made into slivers, then spun into yarn and woven into a fabric of cloth which the patentees call "Angola flannel." This fabric is afterward printed when intended for dressing gowns. The claim is for "manufacturing flannel from yarn produced from a mixture of vegetable and animal fibers." Flannel composed of half wool and half cotton has been quite common for years in the United States, and is much worn in summer because it does not shrink so much as pure woolen flannel. Are they only just beginning to learn this in England?

Clay Picture Frames.—James Brown, of London, has obtained a patent for making photographic picture frames of burnt clay. He prefers to use the kind of which tobacco pipes are made. The clay is taken in a moist state and forced into a mold of the desired pattern, then the mold is subjected to pressure in a suitable press, for the purpose of giving strength and sharpness to the frame. The mold is slightly oiled inside, and the back of the clay is covered with a tin plate, to which it will not adhere. This is for the purpose of permitting the frame to be easily drawn from the mold. After the mold is pressed, the clay frame is removed from it and placed in a kiln, and when a sufficient number are ready they are burnt, after which they are gilded or otherwise ornamented, like porcelain.

Distilling Coal and Shale for Oil.—A patent has recently been taken out by Mr. James Young (the first inventor of distilling coal and obtaining marketable oil) for an improved distillery apparatus to obtain the crude oil. Several chambers, built principally of fire brick, are placed side by side in a circle and filled with cannel coal, or bituminous shale. A jet of high pressure steam of the heat necessary to effect distillation is admitted into the first chamber of the series, and after passing through the contents of it the steam passes through an outlet pipe into the second chamber, thence to the third, and so on through the whole series. The oils thus generated and the steam which is condensed fall down to the bottom of the chambers, and are conveyed into suitable tanks, ready for the second, or refining process. The contents of the first chamber, after being deprived of their oil, are withdrawn, then another charge is put in, when this chamber then becomes the last of the series, the steam being then turned direct into the second chamber, and so on, thus obtaining a continual circulation of steam and a continuous succession of charges.

Composition for Covering the Caulking of Ships.—W. J. Hay, of Southsea, England, patentee. The improved composition claimed for this purpose consists of asphalt, or any of the natural bitumens, dissolved in rosin oil, then mixed with vegetable tar and some dissolved india rubber. The common pitch which is used for covering the caulked seams of vessels does not possess sufficient elasticity. This new composition is elastic, adhesive and very durable.

Purifying Oils.—In distilling crude oils for purification, C. Corroy Rignault, London, mixes with them a powder compound of ground charcoal and powdered clay, or powdered soap dust, then submits the oil to distillation in the usual method. It is stated that the tarry bitumen in the crude coal combines with the powder, and a tolerably pure oil passes over. A second distillation, however, is necessary to obtain the most highly refined oil, and for this purpose a powder compound of charcoal dust, soapstone powder, some powdered quick lime and carbonate of soda are mixed with the oil, which is submitted again, as before, to distillation. Rosin and fatty oils thus treated become, it is stated, highly refined, and free from disagreeable odor.

Utilizing Spent Bark of Tanneries.—M. Larberg, of London, has patented a process for treating spent tanbark and obtaining useful chemical products therefrom. He takes the tanbark as it comes from the yard, places it in retorts, and subjects it to destructive distillation. Crude oil, tar and gas pass over, and charcoal is left behind in the retort. The gas which passes over is employed to illuminate the tannery or village in which the works are situated, and the tar and oil are treated with chemicals for obtaining paraffine, benzole and naphtha—all useful products.

Treating Teas to Improve their Flavor.—A patent has been obtained by J. Franke, London, for the following very peculiar process of treating teas, whereby their qualities are said to be greatly improved. A mixture of ouchong, flowery Pekoe, Sstrong black leafed Congou and Assam, fine gunpowder and early buds of the cowslip hyson green, in about equal proportions, is made up and placed between two highly polished surfaces of metal plates and subjected to pressure. The apartment in which this process is conducted must be maintained at 60° Fah., and the leaves are kept at this heat for seven days. They are then removed into an apartment 80° temperature, spread out upon smooth tiles, and turned regularly, so as to expose the whole to the heat, for about twelve hours. The tea is then put through an ordinary tea mill, and all the inferior leaves picked out. It is then packed in hermetically-sealed tin cans and stored in a dry room heated to 90°, where it is left for four months before it is removed for use. This heating and drying process may improve tea for use as much as the roasting of coffee beans to obtain palatable extracts of coffee.

Operations of the Patent Office.

Some recent statistics of the Patent Office have appeared, which will afford interest to our readers. Since May 31st, patents have been issued to citizens of the several States as follows:

New York	253	Wisconsin	16	Kansas	
Massachusetts	107	Iowa	15	Georgia	1
Pennsylvania	96	Maine	13	Oregon	1
Ohio	59	California	13	Alabama	1
Illinois	56	Vermont	9	Tennessee	1
Connecticut	45	Missouri	8		
New Jersey	35	Kentucky	6	England	11
Michigan	26	Texas	3	France	5
Rhode Island	24	Minnesota	3	Canada	2
Indiana	23	Australia	2	Prussia	1
Maryland	20	Dist. of Columbia	2	Germany	1
New Hampshire	18	Virginia	2	Bavaria	1

The present war has stimulated the invention of the following improvements, which have been patented:

1 Camp bedstead,	1 Guide for bombs, lances and other projectiles,
1 Camp chair,	1 Water-proof cartridge,
1 Camp cot,	3 Cast-iron ordnance,
1 Tent fixtures,	1 Ordnance,
1 Camp chest,	1 Vent-stopper for ordnance,
1 Camp stool,	2 Breech-loading ordnance,
3 Tents,	4 Firearms,
1 Hand grenade,	5 Breech-loading firearms,
1 Preparation of granulated powder, to serve as charges for fire-arms	1 Adjustable back sight for fire arms,
3 Projectile for rifled ordnance,	2 Canteens,
3 Projectiles for ordnance,	1 Canteen filler,
1 Bombshell,	1 Military cap,
1 Gun carriage,	1 Officers' shoulder straps.

Of these, the improvement in gun carriages and granulated powder are the inventions of subjects of Queen Victoria; the others are inventions of Americans. The whole number of patents granted since January 1, 1861, is 2,223.

TO PREVENT SKIPPERS IN HAMS.—In a communication to the *Cotton Planter*, Mr. W. McWillie says:—"There is, according to my experience, nothing easier than to avoid the skipper and all worms and bugs that usually infest and often destroy so much bacon. It is simply to keep your smoke house dark, and the moth that deposits the egg will never enter it. For the past twenty-five years I have attended to this, and never have had my bacon troubled with any insect. I have now hanging in my smoke house hams one, two and three years old, and the oldest are as free from insects as when first hung up. I am not aware of other causes for the exemption of my bacon from insects, but simply the fact that my smokehouse is always kept dark. Before adopting this plan, I had tried many experiments, but always either without success or with injury to the flavor of my bacon. I smoke with green hickory—this is important, as the flavor of bacon is often utterly destroyed by smoking it with improper wood.

A VORACIOUS SERPENT.—M. Dumeril, Professor at the Museum of Natural History in Paris, communicated to the French Academy of Sciences, at its sitting on September 30th, a remarkable fact regarding the voracity of a boa constrictor. One of these serpents, originally from the island of Trinidad, has been in the Museum of Natural History for five years. In the evening of August 20th, being very hungry, it swallowed a large woolen blanket, over 7 feet 2 inches in length and 5 feet in breadth. One month afterward, on September 20th, it made great efforts to vomit, and at last succeeded in throwing up the blanket, and though it appeared fatigued and sick for the two following days, it is now in perfect health.