and should command our utmost attention. For my own part I have quite a "golden" idea upon the subject—that the interior of the earth is abundantly supplied with, if not mainly composed of, gold, platinum and other precious metals. If we suppose but for an instant that the earth was once in a gaseous or fluid state, is it not quite evident that those substances most difficult of fusion, and possessing the greatest specific gravity, would be the first to find their way to the center? Now gold, platinum and a few other of the precious metals, possess these properties in a high degree above all other known substances, and though we know them to be scarce on the surface of the earth, we have no assurance but that they are abundant in nature. In view of these facts, is it not reasonable to suppose that these substances rapidly increase in quantity as we approach the center of the earth?

But it may be said that this probable or possible increase depends upon the idea that the earth was once mainly in a gaseous and fluid state. But even supposing that such never was the case, and throwing aside all possible and probable changes which the earth may have undergone, and taking only such changes as the learned geologist, who has carefully studied the chemical composition, structure and general position of the various strata of rocks, must know have actually taken place, we would ask, would it not be the constant tendency of these substances, being so much heavier and more difficult of fusion than other substances, to work away from the surface toward the center? And is it not probable, in view of the properties of these metals, and the known changes which the earth has undergone during the myriads and myriads of ages it must have existed, that they do actually increase in abundance as we approach the center portions of the earth. Indeed it is a matter of wonder that they are to be found at all on the surface, and such a fact can only be accounted for by the supposition that they exist in great abundance in nature.

It may be further urged in favor of this theory that these metals occur in nature invariably in a metallic state, and but little alloyed with other metals.

JOHN CALVIN MOSS.

[The specific gravity of the earth is only about one-third that of gold, the earth being 5½ times heavier than a mass of water of the same size would be, and gold more than 19 times heavier than its own bulk of water. Consequently the earth cannot be nearly all gold, though the idea that there is a great deposit of gold and platinum at the center may not be improbable. The specific gravity of the earth has been measured by three different methods.

A commission, of which Dr. Franklin was a member, measured the contents of the mountain Schehallien, in Scotland, and from the specific gravity of the rocks of which it was composed, computed its weight. Then a ball was suspended by the side of the mountain, and, by observations on the stars, the extent to which the ball was drawn from a vertical position, by the attraction of the mountain, was ascertained. From this the relative power of the mountain and the earth in attracting the ball, and hence the relative weight of the two, was computed.

A second plan, tried by Cavendish, was to measure the attractive force of a large leaden ball by means of a torsion balance.

A third plan, which was tried by the Italian astronomers, Plana and Carlini, and which has been recently repeated by Professor Airy, is to observe the effect upon the oscillations of a pendulum produced by varying its distance from the center of the earth.

The first method gave the specific gravity of the earth	4·95
The second	5·48
The same repeated by Baily	5·44
Plana and Carlini's result was	4·95
Professor Airy's was	6·56
The mean of these is	5·44

EDS.

THERE are some lines of railroad in this country running side by side. The Morris and Essex and the New Jersey Transportation Company, are examples. Trains on these roads start at the same hour and for three or four miles run side by side so close that passengers reach out of the windows and shake hands with each other when running 25 miles an hour.

RECENT AMERICAN PATENTS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week; the claims may be found in the official list:—

Hats and Caps.—The object of this invention is to thoroughly ventilate a gentleman's hat or cap, and it is effected by securing the sweat lining upon the interior of the hat body in such a manner that a space will be left all around between it and the body proper, through which space air is freely admitted to the hat, and after circulating through it escapes at the ordinary ventilating apertures made in the top or sides of the hat. A good and thorough ventilation is secured by this arrangement; the hat easily adjusts itself to the head, and has, in every respect, the appearance of a hat having its sweat lining attached in the usual manner. This invention is applicable to any style of hat or cap now in the market, and any one wearing a hat having this ventilating arrangement will experience much comfort and relief during the hot and sultry weather of the summer months—the head being always kept cool. The inventor of the above is Chas. L. Rahmer, Brooklyn, L. I., and the hats are now being manufactured by Messrs. Spruham & Rahmer, No. 21 Park Place, New York City.

Apparatus for Making Extracts.—This invention relates to an apparatus which is particularly intended for extracting oil from paraffine, but which can also be used for making extracts of any other material. The invention consists in subjecting the material to be extracted to the pressure of the atmosphere by placing it in a tank with a perforated false bottom, and forming underneath said bottom a more or less perfect vacuum. The means employed for producing the vacuum are of different kinds, and can be varied as may be convenient. Patented in the United States and in Europe through the Scientific American Patent Agency. Lyman Smith, Erie, Pa., is the inventor.

Watchman's Time Detector.—This invention relates to an improvement in that class of time detectors on ~~which a patent~~ was granted to John Buerk, Jan. 1, 1861. In that case a strip of paper is used stretched on the circumference of a drum, to which a rotary motion is imparted by a clock or watch movement, and a series of spring points serve to perforate this strip according to the same, when these points are operated by a series of keys of peculiar shape. On the strips are marked the hours corresponding to hours on the dial of the clock or watch, and the time when one or more of the spring points have been actuated can be ascertained after the strip has been taken off. This construction necessitates a drum in addition to the ordinary clock or watch movement, whereby the expense of the mechanism is increased; and, furthermore, the operation of applying and removing the strips of paper is tiresome, and requires much care. These difficulties are avoided by using a clock or watch with a stationary index and revolving dial. On this revolving dial are fastened removable dials of paper, or other suitable material, with a series of circles corresponding to the positions of the spring points, and these spring points are concealed under the stationary index. By inserting one of the keys, and turning the same round, the paper dial is pierced by one or more of the spring points, and the time when this takes place can be ascertained by examining said dial when the watch or clock is opened. The perforations in the paper dial are made from below, under the stationary hand, leaving a slight beard on the upper surface, and a similar perforation cannot be produced, even if the watch or clock be opened, except if the paper dial is taken off. Jacob E. Buerk, Boston, Mass., is the inventor.

Corset.—This invention consists in a new mode of making corsets and applying the springs used in them, whereby one is enabled to remove them for the purpose of washing the body of the corset, or for any other purpose. Corsets are now commonly made with flat metallic springs inclosed within the stuff of which the corset is made, along the front edges thereof, or else fastened along said edges on the outside of the stuff. In order to unite the edges of the corset on the person of the wearer, the springs are furnished with hooks and eyes or equivalent fastening devices, which are riveted to the faces of the springs or otherwise secured thereto. These springs are fastened to the body of the corset in a permanent manner, with no provision for removing or detaching them for any such purpose as cleaning or repairing the corset, or of renewing or repairing the springs. In consequence of this construction the corset cannot be washed when it has become soiled without wetting, and thereby rusting the springs, and the common course now is to wear a corset without washing it, until it is worn out, and its place is then supplied by a new one. This invention has for its object to construct the corset and apply the springs in such a manner that the latter can be removed at pleasure. James Bowers, No. 540 Pearl street, New York City, is the inventor.

Handle for Sheet metal Tea and Coffee Pots.—The object of this invention is to obtain a sheet-metal handle for sheet-metal tea and coffee pots, and other similar sheet-metal vessels, which may be cheaply constructed, and have a neat and ornamental appearance—far more so than the common sheet-metal and cast-iron handles at present used. The superior class of sheet metal tea and coffee pots are now provided with japanned cast-iron handles, and also with white-metal handles. These, however, retain the heat from the warm contents of the vessel, and are heavy and expensive—so much so as to augment very materially the cost of such articles. This invention consists in having the handles constructed of two longitudinal parts swaged or stuck up in proper form, of sheet metal, and connected together by solder, so as to form a thin hollow or tubular handle. They can be made according to any ornamental pattern desired. The above is the invention of G. B. Halsted, No. 25 Cliff street, New York.

Device for Washing the Blankets of Printing Machines.—This invention relates to a new and useful improvement in means employed for washing the blankets of machines for printing fabrics, such as calicoes, delaines, etc. Hitherto the blankets have been washed by means of rollers placed in a box or tank containing water, and the blanket arranged so as to work in contact with and pass over said rollers, the blanket then passing between pressure or squeeze rollers, in order to have the moisture taken from it before it passes around the cylinder of the printing machine. This plan is defective. In the first place, the pressure or squeeze rollers wear the blanket; and in the second place, the washing rollers, in consequence of being well charged with moisture, bring an excess of the latter in contact with the blanket, and in case the latter is perforated, or has a hole made in it, by wear or accident, causes the cloth to which the rubber portion of the blanket is attached or cemented to be separated from the cloth, thereby spoiling the blanket. This improvement consists in dispensing with the pressure or squeeze rollers entirely, and using, in connection with the washing rollers, a "docter" or scraper or a pressure roller, so as to take the superfluous moisture from the washing rollers, leaving the latter only possessed of sufficient moisture to wash the color from the blanket. Thos. W. Clarke, Manchester, N. H., is the inventor.

SPECIAL NOTICES.

CYRUS W. BALDWIN, Boston, Mass., has petitioned for the extension of a patent granted to him on the 2d day of December, 1851, and antedated August 30, 1851, for an improvement in looms for weaving bags.

Parties wishing to oppose the above extension must appear and show cause on the 14th day of August next, at 12 o'clock, M., when the petition will be heard.

ROBERT CRICHTON and James Rees, executors of Henry Carter, deceased, and James Rees, Pittsburgh, Pa., have petitioned for the extension of a patent granted to them on the 26th day of August, 1851, and reissued on the 19th of June, 1855, for an improvement in nut and washer machine.

Parties wishing to oppose the above extension must appear and show cause on the 7th day of August next, at 12 o'clock, M., when the petition will be heard.

Mr. E. S. ALLIN, master armorer at Springfield, has invented a new breech-loading musket, which is highly commended. General Dyer, chief of the ordnance department at Washington has ordered 5,000 muskets of the old model to be changed to breech-loading after Mr. Allin's plan.