Correspondence.

A Preservative Wanted.

To the Editor of the Scientific American:

One firm in our town has sold for grape covers, in raisin making, during the past two months 42,000 yards of heavy cotton cloth (Cabot A brand). Of course, many thousand yards were in previous use, and increase of acreage will necessitate further large expenditures in this direction in the future. Now, it would be of great value if some one could give us a cheap, effective, unrotting preservative for this vast amount of cotton cloth, which we nightly spread over our grapes during the rasin making season. Who will be this public benefactor? D. EDSON SMITH.

Santa Ana, Cal., Oct. 27, 1886.

An Incident Pertaining to the Earthquake at Savannah.

To the Editor of the Scientific American:

In your last issue of the SCIENTIFIC AMERICAN you quote from Professor John S. Newberry, who, in his lecture, said that "an earthquake wave coming from below often exerted its greatest force on the surface, as in the game called by boys snapping the whip." This, I think, finds direct verification in the following fact:

On the morning following the 31st of August shock at Savannah, the weathercock (in form an arrow) on the spire of the "Independent Presbyterian Church" was seen to be bent, not in the middle, but nearest to the arrowhead.

The church is a very solid granite structure. The top of the spire is 223 feet from the ground, slender and graceful, and suggestive of elasticity. With the exception of some cracks in the ceiling, there appears no damage to the building.

It is difficult to understand why the arrow did not bend at point of contact with the lightning rod on which it revolves. WM. L. WAKELEE.

Savannah, Ga., Oct. 30, 1886.

Large Railway Maps.

To the Editor of the Scientific American:

During my last trip in Europe, I noticed the use made by railroad companies of large wall surfaces in their stations for charts of the railroad system to which the station belonged, and also other connecting lines, or, in one instance, in the depot of the Kaiser-Ferdinand railroad at Vienna, showing Middle Europe, with all railroad and steamboat lines on a large scale, which I found very convenient to myself and fellow travelers, for selecting best routes to different places.

These charts are made, printed, and finished to the wall as common wall paper, and furnished by a large wall paper firm.

This, I think, would also be of great value to the traveling public of this country, and as an advertisement to the railroad companies, in large stations where great halls and waiting rooms offer bare wall surfaces, which at the same time would be ornamented by such charts. A. GARTNER, C.E.

Savannah, Ga., October, 1886.

Dietetic Fallacies.

1. That there is any nutriment in beef tea made from extracts. There is none whatever.

2. That gelatine is nutritious. It will not keep a cat alive. Beef tea and gelatine, however, possess a certain reparative power, we know not what.

3. That an egg is equal to a pound of meat, and that every sick person can eat eggs. Many, especially those of nervous or bilious temperament, cannot eat them; and to such eggs are injurious.

4. That, because milk is an important article of food, it must be forced upon a patient. Food that a person cannot endure will not cure.

5. That arrowroot is nutritious. It is simply starch and water, useful as a restorative, quickly prepared.

6. That cheese is injurious in all cases. It is, as a rule, contra-indicated, being usually indigestible; but it is concentrated nutriment, and a waste repairer, and often craved.

7. That the cravings of a patient are whims, and should be denied. The stomach often needs, craves for, and digests, articles not laid down in any dietary. Such are, for example, fruit, pickles, jams, cake, ham or bacon with fat, cheese, butter, and milk.

8. That an inflexible diet may be marked out, which shall apply to every case. Choice of a given list of articles allowable in a given case must be decided by the opinion of the stomach. The stomach is right and theory wrong, and the judgment admits no appeal.

A diet which would keep a healthy man healthy might kill a sick man; and a diet sufficient to sustain a sick man would not keep a well man alive. Increased quantity of food, especially of liquids, does not mean increased nutriment, rather decrease, since the digestion is overtaxed and weakened. Strive to give the food in as concentrated a form as possible. Consult the patient's stomach in preference to his cravings; and if the stomach rejects a certain article, do not force it.—*Journal of Reconstructives.*

DECISIONS RELATING TO PATENTS.

U. S. District Court.—Northern District of Illinois.

WETHERELL *v.* KEITH *et al.*

Blodgett, J.

In order to defeat a patent on the ground of prior use, such use must be established beyond reasonable doubt. (*Coffin v. Ogden*, 18 Wall., 120; *Washburn & Moen Manufacturing Company v. Haish*, 4 Fed. Rep., 900.)

Where a witness testified to his use of a patented invention sixteen years before the time when he testified, and that he employed some ten persons in its manufacture, and yet could not tell the names of any of such persons, *held* that his testimony failed to make out a defense.

Two witnesses testified in 1884 to seeing the patented device in use in 1864; but their testimony was indefinite and contradicted in many important particulars, and none of the alleged prior devices were produced. *Held* insufficient to defeat the patent.

Letters patent No. 116,411, granted June 27, 1871, to Charles C. Carpenter for an improvement in hoop skirts, sustained over the alleged prior use by Max Schwab, at Ottawa, Illinois, and that seen by Robert G. Lester and August Seligman in 1864.

Appellate Court.—First District of Illinois.

WOLLENSAK, APPELLANT, *v.* BRIGGS, APPELLEE.

Bailey, P. J.

The bill in this case is to compel the specific performance by the defendant of certain contracts between him and the complainant. By these contracts the defendant undertook to produce and construct by his labor, skill, and inventive genius certain improved machinery for manufacturing speaking tubes. Said machines, as the bill alleges, were to embrace and embody various new and useful improvements and inventions made and to be made by the defendant. No details or specifications are given in the contracts as to the form, material, structure, principle, or mode of operation of the proposed machines, all these matters being left wholly to the judgment and discretion of the defendant. Indeed, it is difficult to see how it would have been possible to give any specifications and details of the machines, as some, and perhaps many, of them had as yet no existence in the minds of the contracting parties, but were to be invented and developed by the defendant by means of subsequent thought, study, and experiment.

There are at least two insuperable reasons why these contracts cannot be specifically enforced in equity. The first is that courts of chancery will not entertain bills to compel the specific performance of contracts for personal services. Especially is this true where the services stipulated for require the exercise of mechanical skill, intellectual ability, and the exercise of judgment. Although some cases may be found in the earlier reports holding contrary doctrine, the rule as we have stated it is now well settled.

. . . . If a court of equity should attempt to order a specific execution of the contract in this case, it is manifest that insurmountable obstacles would immediately present themselves. It would be impossible for the court to specify or describe in its decree the machines to be constructed, their form, material, or structure, or if it attempted to lay its mandate upon the defendant to proceed with the invention and construction of the machines stipulated for, it could never know with certainty whether its order was obeyed. If it should attempt to take the execution of the contract into its own hands, it would be met with equal difficulties. Its officer charged with the performance of its decree would be powerless. The court would thus find itself unable to either compel the defendant to execute the contract or to cause it to be executed through any of the agencies by means of which courts of chancery ordinarily enforce their decrees.

U. S. Circuit Court.—Northern District of Illinois.

RACINE SEEDER COMPANY *v.* JOLIET WIRE CHECK ROWER COMPANY.

Blodgett, J.

In a suit for infringement of the fourth claim of Letters patent No. 76,903, of February 21, 1868, for a broadcast seeder, the only proof as to the kind of machine made by the defendant was the testimony of a witness that the defendant was making a seeding machine with two feeding holes and a disk. *Held*, "this proof does not make even a *prima facie* case of infringement without proof showing that the feeding holes and disk in defendant's machine perform the same function as those covered by the fourth claim of the Floyd patent."

Assignment of Patent.—Where a party owning the title of record to a patent for over six months conveyed it for a valuable consideration to a corporation competent to purchase and hold it, and whose title was made a matter of record in the Patent Office, *held* that this title could not be attacked for fraud in the assignor to the corporation.

S. claimed that a bank had, against instructions, delivered a deed to a patent without payment of purchase money, instead of holding the deed as collateral to secure a note given in payment. It appeared that S. knew of the action of the bank, but took the note and discounted it: *Held*, that S. could not be allowed, even against his immediate assignee, to treat the deed as having been obtained by such fraud as would vitiate it.

Personal License under a Patent not Assignable.—S. empowered H., by contract in writing, as his lawful attorney, to sell rights under a patent, at prices to be approved by S., for the then unexpired term of the patent, and authorized H. to manufacture under the patent at a certain royalty, but reserved the power to revoke the contract in case H. should not faithfully perform his agreements under it. *Held*, that the contract both as a power to sell and as a license was a merely personal one, and not transferable by H. except with the consent of S., and that when S. parted with his title to the patent he parted with his right to sanction or vivify any assignment from H.

Volcanic Dust.

The California State Mining Bureau and the California Academy of Sciences have both received samples of the dust, or ashes, ejected by the more active volcanoes of Pabloff, situated west of Pabloff Bay, Alaska. This volcano has been more or less active for years—perhaps for centuries; but on the 12th of August last put forth all its strength about 6 A.M., and sent cinders and ashes a wondrous distance skyward. Some of these were collected and sent here. Wm. Attwood, who examined the specimens sent to the Mining Bureau, states that there are indications of some magnetic substance.

Captain John Ross, of the schooner Unga, was fishing off Unga settlement on the morning of the eruption, and saw what appeared to be a fast-rising thunderstorm to the westward. This was the more remarkable, inasmuch as thunder is very rare in that region. Yet it was so like an electric-laden mass that neither the captain nor his companions doubted for a moment its aerial character, and to further convince them they heard a continuous rumbling between 7 and 8 o'clock, with several loud roars resembling distant claps of thunder.

The mass was slowly moving eastward, and at 9 o'clock it was over and around the vessel, darkening the sky considerably, and so thick that they could not see the land, though but a mile off the shore. They expected rain, but none came, and the air remained crisp and dry. For a time they were at a loss how to account for the phenomenon. After a while, however, some of the men would blink and shake their heads, and assume a questioning mien; then another and another, until all hands were winking and sneezing. Finally, some one discerned minute particles resembling emery on his clothing, and they discovered the character of the "dry rain."

The sky began to clear about 2 P.M., and in the evening the air was clear and the sky bright. From where they lay at anchor, the volcano was distant about 65 miles. The captain has heard that ashes fell to the eastward, off and on Kodiac Island, in plenty. —*Min. and Sci. Press.*

A Torpedo Cannon Ball.

The *Avenir Militaire* gives us some particulars concerning a torpedo cannon ball invented by Captain Coudray, of the navy. Four years ago the captain presented his projectile to the authorities, who at once ordered experiments to be made with it at Gaves, near Lorient. We are told that for some time past the modest inventor has been engaged in manufacturing his projectiles under the supervision of a special commission named by the Minister of Marine. At first it was found that all the projectiles discharged at the mean velocity of 150 meters a second rebounded on striking the object at which they were fired. Time was afforded to Captain Coudray to improve his invention, and it seems that, in spite of much head shaking on the part of the *savants*, he has succeeded in curing the defect complained of. The torpedo cannon ball, we are assured, now travels at the rate of 300 meters a second, and instead of rebounding on striking a ship, glides along its side, and never loses contact until it explodes. The last cannon balls constructed contain a charge of 40 pounds of guncotton, although 25 pounds is said to be sufficient to blow up the biggest vessel. It is stated that these projectiles can be fired to a much greater distance than the Whitehead.

Industrial Exhibition at Venice.

The site of the exhibition which is to be opened in Venice on April 25, 1887, is in the public garden at the end of the Quai des Esclavons. The building will have an area of about 6,000 yards, and it will be occupied by painting, sculpture in marble, bronze, and wood, mosaics, glass, and all kind of work that can be considered as related to art. The modern plan of eking out the interest by means of concerts, games, fireworks, etc., is also to be adopted; and as the exhibition is to remain open for six months, a great many people are likely to select Venice as the region for next year's holiday.