

**Hay Fever and Its Cure.**

Hay fever people will be glad to see the nature and treatment of their complaint described in simple terms, readily understood by every one who comprehends the author's meaning:

These unhappy individuals, according to Dr. Sajous, of Philadelphia, possess, "as a result of heredity or of diseases implicating markedly the nervous system, nerve centers which have become abnormally sensitive, and are therefore inordinately influenced by the external elements to which they respond."

As a result of local disease the nasal mucous membrane becomes hyperæsthetic, and transmits to the abnormally sensitive nerve centers the impressions made by the "external irritants" (pollen, etc.), which results in a paroxysm of "hay fever."

These are the three conditions necessary for a paroxysm, and when one is absent, as is the case with the external visitants a portion of the year, and all the year in certain regions, it will not take place. Hence to cure the disease is to render the hyperæsthetic nasal membrane oblivious to the annual visitation of the external cause. The writer maintains that this can be done by cauterizing the hyperæsthetic portions of the nasal membrane, which he has accomplished with pleasing and permanent results by means of the galvano-cautery or acids.

He describes these hyperæsthetic areas as consisting of three—posterior, middle, and anterior. The posterior area is implicated when reflex asthma is the most prominent symptom; the anterior, when the head symptoms alone are present; the middle is the starting point of all the symptoms combined.

He recommends that abnormal conditions of the nasal cavities, such as hypertrophies, polypi, exostoses, etc., be eradicated before using the superficial cauterization. The best results are obtained by instituting treatment six weeks at least before the onset of a paroxysm, though it may be conducted during a paroxysm, resulting sometimes in an arrest of it or a beneficial modification. Immunity depends on the thoroughness with which the treatment is conducted.

It would seem, says the *Medical Record*, from the perusal of Dr. Sajous's monograph on the subject, that the hay fever might become unknown, provided its victims would put their hyperæsthetic nasal membranes under the treatment of an adept in rhinology. The banishment of hay fever from the list of diseases would be a boon to all except the hotel keepers of those resorts where, since the "external irritant" does not lurk in the atmosphere, the cause is removed and a cure is effected.

With the mechanism of the disease still in mind there remains one other method, which will be as much superior to that advanced by Dr. Sajous as his is better than the now prevailing method of changing abode, namely, that of finding a remedy which will act directly upon the abnormally sensitive nerve centers. We commend this to investigators.

**Repairing Tin Roofs.**

A correspondent communicates to the *American Artisan* his method of finding and mending the leaky places in painted tin roofs, which seems very practical. "My way is to start at the bottom of the roof, with a piece of chalk in one hand and a thin knife in the other. I examine the seams in one tier of sheets, and if I find a place that looks as if it might leak, I try it with the knife, and if it requires soldering, I mark the place with chalk. In this way I go over each tier of sheets, and look at every inch of the seams.

Of course, it is no little labor to go over a roof in this way. It often takes considerable trouble to get on to a roof; but the workman who hesitates about doing this work thoroughly belongs to the same class as the 'other fellow' who was on the roof before and did not stop the leaks.

The tools to be used other than the regular soldering tools are a hoe shaped scraper, which can be made out of an old file, and a piece of grindstone to sharpen the scraper with, so as always to have a sharp cutting edge. After having scraped clean a number of leaks, tin the places by using ordinary soldering acid, so that every scratch made in the tin will be well tinned, and not left to rust through. Then wipe off the acid with a wet cloth. The leaky seam is now as bright and clean to solder with the use of rosin as when the roof was new.

The reason for using rosin instead of acid to solder with, is on account of the curious way solder has of acting when acid is used. With rosin the solder can be piled on very evenly, and if the scraper is only as wide as the space on which solder is required on each side of the crack in the seam, then all the soldered places will present an even and orderly appearance.

The objection to this way of repairing a roof is that the unequal expansion and contraction is apt to break open the solder. I have noticed on old roofs where the solder has been piled over a nail head, that the nail had worked up through the solder so it could be pulled out with the fingers. To overcome this difficulty, cut some pieces of tin, say three-quarters of an inch wide, and give them a slight bend in the locker, so the edges will not be apt to spring in soldering. These pieces

are to be cut to proper lengths and soldered over the cracks, and as very little solder is required they expand and contract the same as the roof, and consequently will not crack off.

Another way to repair a roof, is to cut some pieces of cloth, three-quarters of an inch wide, and run them through thick paint, which can be done by soldering a wire on the bottom of the paint dish before the paint is put in; putting the strip of cloth through the wire loop and pulling it through the paint, cutting off the desired lengths with a pair of shears. The seam in the roof should first be painted, then the strip of cloth can be made to lie down nicely by the use of a small flat paint brush. I have made at the rate of three dollars per hundred patches repairing roofs in this way."

**IMPROVED LADDER.**

The accompanying engraving represents an adjustable ladder patented by Mr. Robert Furlong, of Sausalito, Cal., for house or orchard use, and which is adapted to support a platform when desired. Two pairs of side bars are pivoted to each other in pairs a short distance above their centers. The bars of one pair are united by a series of cross bars, and the other bars by cross bars at the top and crossed braces and a cross bar near the lower ends. The bars are inclined toward each other from their lower to their upper ends, and are widest at the pivots. A strap joining the lower cross bars prevents the ladder from spreading, and serves to hold the sections at the desired inclin-

**FURLONG'S IMPROVED LADDER.**

ation. When necessary, a platform can be placed on the upper rungs, or the ladder can be used without the platform. The ladder is strong, folds up compactly, and can be quickly placed in position.

**Analgesia.**

The chief fact in connection with this subject is that almost any irritation of the larynx and upper end of the trachea is said to have the power of depriving the animal of the capacity to feel pain, the whole of the other functions of the nervous system remaining intact. The most powerful agents with which to effect the irritation are carbonic acid and chloroform. Brown-Sequard has continued his experiments on monkeys, and also on his own person. It is difficult to apply the necessary measures to the human being. Some success was obtained by getting an individual to inhale pure air during two-thirds of each inspiration, and then finishing up with chloroform or carbonic acid, which had to be immediately expelled. Sometimes an analgesic effect was produced, but the experiment had to be prolonged for many minutes. On the whole, the results did not seem to be very satisfactory. In monkeys the irritation can be effectually carried out, and then the analgesia is most marked, and lasts many days. It is said that there was insensibility to the existence of wounds for as long as ten days.—*Lancet*.

**Why the Italians Sing.**

C. H. Von Klein, M.D., gives the following in a paper read before the thirty-ninth annual session of the Ohio State Medical Society, at Dayton, June 5, 1885:

Through the kindness and under the auspices of the late Dr. Bordini, of Rome, the author had made the examination of the throats of thirty-two Italians, thirteen of whom were professional singers. The Italians appear to have natural organs of voice for music. He found the throat very roomy, the tonsils almost level with the fauces, the uvula extending only one-eighth of an inch from the soft palate, the posterior nares very large, the larynx thickly lined with a smooth mucous membrane, the trachea enormous. Another peculiarity was, the author found it very seldom necessary to use a tongue depressor. They seem to place their tongue down to the mylohyoid muscles, forming it into a concave shape. This accomplishment is necessary for a singer, and can be effected only by long and tedious training.

**DECISIONS RELATING TO PATENTS.**

**U. S. Circuit Court.—Northern District of New York.**  
GAGE v. KELLOGG *et al.*

METHOD AND APPARATUS FOR TREATING SEEDS.

Coxe, J.:

There cannot be in the same patent a claim for a machine and a claim for the process of using that machine.

Reissued letters patent No. 8,615, dated March 1, 1879, and granted to William B. Fisher for an improvement in seed steaming apparatus, expands the claims in the original patent, and is void.

**U. S. Circuit Court.—Southern District of New York.**  
TOMKINSON v. WILLETS MANUFACTURING COMPANY.  
DESIGN PATENT FOR A VEGETABLE DISH.

Coxe, J.:

When a decree has been entered by consent in a prior suit declaring a patent valid, and that complainant is the sole owner thereof, such decree will be considered binding, as to all questions determined thereby, in a second suit between the same parties.

It is not necessary that a design patent should be copied in every particular to constitute an infringement. It is sufficient if the resemblance is such that an ordinary purchaser would be deceived, although the infringer has deviated slightly in details or has omitted something which an expert could discover.

**U. S. Circuit Court.—Southern District of New York.**  
HOLMES ELECTRIC PROTECTIVE COMPANY v. METROPOLITAN BURGLAR ALARM COMPANY.

Wheeler, J.:

It is only a patent for an invention that has been previously actually patented in a foreign country that is limited by the foreign patent. The description of the invention in the foreign patent might affect the validity of the domestic one, and might not, but would not limit it. (Rev. Stat., sec. 4,887.)

**Light and Heat.—New Experiments.**

A remarkable observation of M. Felix Lucas upon the radiation of incandescent carbon has been communicated to the Academie des Sciences. The author begins by recounting how with inoxidizable metals heated in air the radiations, at first obscure, become more and more luminous as the temperature is raised. Thus, according to M. Pouillet, a temperature of 525° C. corresponds to a just visible red; and that of 1,500° C. to brilliant white. An analogous phenomenon is observed if carbon is heated, being previously placed in a vacuum to prevent combustion. When sufficiently heated, the carbon becomes a veritable lamp, thus showing the existence of a relationship between the temperature and the brightness of the radiations from the body.

With a view to determine this relationship in precise terms, M. Lucas prepared an arrangement of apparatus whereby he could heat *in vacuo* (by the current from a De Meritens machine) some specimens of ordinary arc-lamp carbon, 5 mm. in diameter, manufactured by M. Carre. He obtained formulæ by which he was able to calculate the temperature of the carbon corresponding to any observed intensity of current and illuminating value. By this means he was able to trace how the illuminating power increased with the heat from the first visible glow at 1,000° C., valued at only 3 carcels, rapidly up to over 300 carcels, and then slower, until, at a temperature of 4,500° C., the luminous radiations were equal to 413 carcels. Up to this point, therefore, although the heat had been only increased in the ratio 1:4.5, the luminous intensity was increased in the ratio 3:413. Now, however, a curious phenomenon appeared. An increase of temperature from 4,500° to 4,750° C. only increased the light from 413 to 420 carcels; and a further increase of temperature to 5,000° C. actually had the effect of lowering the light to 413 carcels, or the same intensity as that produced at a temperature 500° lower. It is noteworthy, as contrasted with this, that the increase of temperature from 3,125° to 3,520°, or only 395°, doubled the light emitted from the carbon. Thus, after a certain point, increase of temperature has a lessened effect in developing light, until, beyond the maximum of 4,750°, heat ceases to provoke more luminous radiations, and even reduces their visual value. Consequently, in stating this most striking conclusion, M. Lucas expresses the opinion that it is probable that calorific radiations, at first obscure, then successively luminous from red up to white, finish by passing beyond the violet end of the spectrum, and thus cease to be visible. Heat may, therefore, be invisible because of its intensity as because of its feebleness.

**A Locomotive Museum.**

The Chicago division of the Brotherhood of Locomotive Engineers is making a collection of railway appliances and historical works pertaining to locomotive management, to be placed on exhibition in Scientific Hall, for the purpose of more fully instructing members in the working and management of locomotive engines. The hall will be fitted up with proper appliances for showing the working of each article on exhibition.