

THE TUBEROSE.

W. C. L. Drew writes as follows to the *Pacific Rural Press*: There is not perhaps another summer flowering bulb so pretty, so fragrant, or so universally admired as the tuberose; its beautiful, pure white, wax-like flowers, emitting such a sweet and delicate perfume, and borne in such long and stately spikes, always attract attention and admiration wherever cultivated. It also thrives well, is adapted to our climate and endures much neglect.

Possessing such rare qualities it would seem strange that they are so sparingly cultivated. But the whole secret lies in the keeping of the bulbs during the winter. They require to be kept in a warm, dry room, in order to preserve the germ of the flower stalk. Nurserymen mostly store them above the flue in the greenhouse, but amateurs can keep them in the sitting-room, where an even temperature is preserved. Again nurserymen are not always successful in keeping them, and not unfrequently sell bulbs that will not flower. This greatly discourages the amateur, who is not able to discriminate between the flowering bulbs and those that are impaired. To enable the amateur to form a judgment in regard to flowering and non-flowering bulbs, we will lay down a few rules. The bulbs that bloom are always of good size, and the top or germ will be perfect, and in a growing condition. The impaired bulb has an abrupt or short top, and if you examine it you will find a dark or decayed cavity extending down into it at the center. By observing these rules the amateur can usually select the bulbs which will furnish blooms and those which will not.

Many amateurs have to get their bulbs by mail. To be safe in getting them in this manner it will be well to order only of reliable parties, and ones who understand the nature of the bulb. Around the bulbs when removed from the ground in the fall will be found a number of small tubers. These are removed from the bulbs before offering for sale, and planted in the spring to make bulbs for future flowering. It takes two years' cultivation before these become large enough to bloom. The largest bulbs produce the largest and finest spikes, and also the earliest; in purchasing therefore always procure the largest size to be had. We mention this fact as dealers generally—wholesale dealers always—offer them in two or more grades, according to size, the first grade being the largest and always commanding the highest price, frequently nearly double that of the second grade; but then it is the most remunerative plan to invest in them, even though you can afford only half the quantity.

After a bulb has once bloomed it will not bloom again, but others may be raised from the offsets which surround it. We have the tuberose in double and single variety, the double being by far the most popular, although some prefer the single.

The tuberose is a native of the East Indies and of South America. From the former country it was transferred to Italy, from whence it takes its name of Italian tuberose. It belongs to that wonderful and beautiful order—*Amoryllidaceae*—the *Amoryllis* family. Its botanical name is *Polyanthus tuberosus*.

THE HEADACHE TREE.—Its name alone, *Orthocarpus Californica*, is almost enough to give one a headache; but if you rub its leaves for a short time over your face and hands you will get a headache, surely; and if you happen to have a headache, why, the same rubbing will drive it away, at least, so the natives say. This obliging tree is a fine-looking evergreen, with a strong spicy smell, and I'm told that it is found in California.—*St. Nicholas for March.*

A WARNING TO PLUMBERS AND THEIR PATRONS.

Diphtheria, scarlet fever and pneumonia have been particularly active in certain parts of New York and Brooklyn during the past year, and the cause is criminal carelessness, official stupidity, and extraordinary recklessness on the part of property owners, and of builders and plumbers. Although the life of a person in ordinary circumstances is of as much value as the life of a millionaire, it is quite natural that the latter, dying in a costly mansion where money has been lavished on devices for protection and comfort, should attract the greater attention, especially if it were a reasonable inference that sewer-gas was in any degree a predisposing cause. Fortunately the death of the late Mr. Rockwell, in Brooklyn, was brought to notice of the authorities, and the result of an official investigation is most surprising.

When Mr. Rockwell's family began to die, and one after the other was carried to Greenwood, public attention was attracted to the several possible causes of this extraordinary fatality, but no one dreamed that the death-trap was the trap in the millionaire's costly but worse than useless plumbing.

The Sanitary Superintendent of Brooklyn examined the pipes and general plumbing, assisted by an expert. Among other things they found that some of the main lines of soil-pipe that are continued to the roof do double duty—carrying off the sewer-gas and acting as rain leaders. One of the pipes receives the water from 1,200 square feet, and during heavy rains is so filled with water as to empty every trap connected with it. The water closet in the bath room was found attached to this pipe, and its trap was so nearly emptied of water that it offered no obstruction to the entrance of sewer gas. Mr. Rockwell had wash basins in his sleeping rooms and nursery, but the traps do not hold water, so of course the gas had no difficulty in gaining entrance. In fact, if the builder had desired to turn his house into a hospital and furnish his own patients, he could not have devised a better system of defective plumbing.

ARE FAT PEOPLE HEALTHY.—Why are fat people always complaining? asks some one who entertains the popular though erroneous notion that health is synonymous with fat. Fat people complain because they are diseased. Obesity is an abnormal condition of the system, in which the saccharine and oleaginous elements of the food are assimilated to the partial exclusion of the muscle-forming and brain-producing elements. In proof of this, it is only necessary to assert the well-known fact that excessively fat people are never strong, and seldom distinguished for mental powers or activity. Besides they are the easy prey of acute and epidemic diseases, and they are the frequent victims of gout, heart disease and apoplexy.

MILK AS A SOPORIFIC.—According to the *Pharmacist*, it is a frequent practice in the New York Asylum for Inebriates to administer to the patients at bed-time a glass of milk, to produce sleep, and the result is often found satisfactory without the use of medicine. Medicine is there sometimes prescribed in milk. It has been recently stated in medical journals that lactic acid has the effect of promoting sleep by acting as a sedative, and this acid may be produced in the alimentary canal after the ingestion of milk.

HAYSTACK FIRES.—WASP INCENDIARIES.—The frequent mysterious burning of haystacks and farmers' buildings has led to the discovery that they are usually set on fire by wasps' nests, and that the nests are ignited by spontaneous combustion. This is produced by the chemical action of the wax in contact with the paper-like substance of which the nest is composed, a comparatively small access of oxygen being sufficient to make it burst forth in a flame.

NEW INVENTIONS.

We publish descriptions of the following new inventions, obtained through Doney & Co.'s Mining and Scientific Press Patent Agency, San Francisco:

WAGON BRAKE.—J. F. Ditworth, Austin, Lander Co., Nev. Dated, March 18th. This improved wagon brake consists in attaching to the rod connecting the brake bar with the roller, a case containing a spiral spring, through which the connecting rod passes. A nut on the rod under the case bears against the spring, when the brake is thrown on, so that in case a wheel is not perfectly round and the high place on the wheel strikes the brake shoe when the brake is on tight, there is no danger of breaking the rods or of locking the wheel in one place so as to wear out the tire at one point. Suitable nuts are placed in the connecting rod for regulating the tension of the spring, and also for preventing the rod coming too far back in case the spring is broken or becomes too loose. With an ordinary brake, the bar is connected to the roller by a solid connecting rod running to the short arm in the roller. In case the wheels are not perfectly round when the brake is on tight and the high place in the wheel strikes the block, the wheel will stop rotating and the part of the tire on the ground will be subjected to unnecessary wear. The tire will, therefore, soon become worn through at that point. Again when the wheel strikes the brake in the high place, it causes a jar on the brake frequently causing the brake to give way. Very many of the accidents from brakes giving way have been occasioned by this defect. With this improved brake, when the high place in the wheel strikes the brake blocks, the spring in the case attached to the brake bar will give enough to allow the high place to pass the blocks without causing the wheel to drag, saving the tires from wear and causing no jar to the brake rods. When the brake is suddenly thrown on, and while its action is just as effective, it comes up with an easy motion and no jar. This method of connecting the brake bar with the levers tends also to keep the wheels round, as wherever there is a tendency to bulge, there a greater pressure is exerted. The spring being enclosed in a shell is out of the way of the dust and dirt, but is easily accessible for repair or replacement, by separating the two sides of the shell.

CARRIAGE SPRING.—Orris S. Carvill. Dated March 18th. This invention relates to a novel improvement in the construction of springs and gear for carriages and other vehicles, and it consists mainly in the combination with the wooden side bars of a buggy of a central longitudinal supplemental steel spring, so arranged and connected with the side bars that it will take a considerable portion of the strain when a heavy load is brought upon it, and by its assistance to the wooden side bars greatly adds to the elasticity of the buggy. It further consists in the employment of a peculiar clip by which the side bars are attached to the bolster and the rear axle bed, and by which they have a free and independent motion upon their points of attachment, and the axle bed or bolster will not be rocked back and forward by the vertical movements of the side bars and spring.

A RARE MINERAL.—Mr. Edward Goldsmith exhibited, at a late meeting of the Philadelphia Academy of Sciences, a specimen of asphaltum found 16 feet below the surface in a bed of cretaceous marl near Vincenttown, N. J. In the same bed and within a few feet of the asphaltum was found a yellow mineral resin of the nature of kranzite (first described by Bergeman as occurring at Nienberg, Germany), a species of amber, and containing small white crystals, believed to be succinillite. This is the first time that either of these minerals has been found in New Jersey.