

desert lands of Fresno, Tulare, and Kern counties have been reclaimed by irrigation the progress of fever and ague, previously unknown there, has been rapid and general.

Various suggestions of remedies have been made, one idea being that if a system of thorough drainage should be combined with that for irrigation, it would mitigate the evil. Some benefit seems to be derived from having rooms used as dormitories at a considerable elevation from the ground, and huts raised on long poles have been tried, while one wealthy vine grower has built a three story dwelling. Others seek immunity by living in villages at a distance from their farms and the irrigating ditches; and perhaps this practice will become universal. As showing that the question is not a local one, confined to the counties named, it is mentioned that the same experiment was tried, with similar results, in the county of Yolo, a hundred miles north of San Francisco. A large ditch led the waters of a small stream across a number of farms, and in a few years ague became common, families began moving away, and, as irrigation was not indispensable to cultivation in this instance, the ditch was finally closed.

#### Pink Eye in Horses.

Dr. C. E. Page writes to the editor of the *Boston Medical and Surgical Journal* as follows:

This disease in horses is one of the varieties of catarrhal or influenza colds, so-called, prevalent in this climate among human beings, and springs from the same cause, namely, excessive, over frequent, or otherwise injudicious eating. The custom of working or exercising horses directly after eating; of feeding them directly after hard work, and before they are thoroughly rested; baiting at noon, when both these violations of a natural law are committed; these are the predisposing causes of pink eye, and of most diseases that afflict our horses. The symptoms denominated pink eye are not indicative of dangerous disease, unless feeding is kept up; but if it is, then pneumonia, which is merely an aggravation of the original disease, is very likely to result. Keep the horse quiet, dry, warm, and in a pure atmosphere. The nearer out-door air the better, and stop his feed entirely at the first symptom of disease, and he will speedily recover. As prevention is better than cure, horsemen will do well to heed the hint here given and keep their creatures from contracting this or any other ailment. It has been demonstrated in tens of thousands of cases, in family life, that two meals are not only ample for the hardest and most exhausting labors, physical or mental, but altogether best. The same thing has been fully proved in hundreds of instances with horses, and has never in a single instance failed, after a fair trial, to work the best results.

An hour's rest at noon is vastly more restoring to a tired animal, whether horse or man, than a meal of any sort, although the latter may prove more stimulating. The morning meal given, if possible, early enough for partial stomach digestion before the muscular and nervous systems are called into active play; the night meal offered long enough after work to insure a rested condition of the body; a diet liberal enough but never excessive; this is the law and gospel of hygienic diet for either man or beast. If it be objected that these conditions cannot always be fully met in this active work-a-day world, I reply, let us meet them as nearly as possible. We can, of course, do no more than this; but we can come nearer the mark on the two-meal system than on three. I will add, *in parenthesis*, that the nervous disorder commonly known as "pulling" will yield readily to this principle of treatment. It makes the puller healthy; he is better nourished and therefore less "nervous;" and he will do more roading, and without excitement or profuse sweating. He is not made less ambitious by reason of reduced muscular power, but by reason of better digestion and assimilation—more nourishment and less stimulation. Horse dealers or others, whose business or pleasure depends on the plump appearance of their animals, regardless of the size of their muscles, who must have a horse fat if he is not fleshy, for style, may have to take the chances and feed three times a day; but of this I am by no means sure. I have never tried to fatten my horses, for I long ago learned that fat is disease; but I have always found that if a horse does solid work enough he will be fairly plump if he has two sufficient meals. Muscle is the product of work and food; fat may be laid on by food alone. But for perfect health and immunity from disease, restriction of exercise must be met by restriction in diet. Horses require more food in cold than in warm weather, if performing the same labor. In case of a warm spell in winter I reduce their feed, more or less, according to circumstances, as surely as I do the amount of fuel consumed. I also adopt the same principle in my own diet. The result is, that neither my animals nor myself are ever for one moment sick.

#### Milk Diet in Bright's Disease.

Since we know not at present any drug that possesses therapeutic value to any marked extent in this terrible and fatal disease, and since it is daily making sad havoc among human beings, and principally among that class who, by reason of their valuable public labors, are particularly necessary to the welfare of the world; therefore, it becomes a medical question of paramount interest that we should discover some potent method of combating this very prevalent disease. Some years since Carel first called attention to the treatment of Bright's disease by the use of a milk diet, and since then Duncan, as well as many other prominent physicians, have written on this subject. We have ourselves seen

some remarkable results follow this treatment, while Dr. S. Weir Mitchell, of our city, is now quite an enthusiast on this subject. This method of treating a formidable disease has received sufficient distinguished indorsement to recommend it seriously to our notice. We would, therefore, ask all physicians who read this article to try this method of treatment, and to furnish us with their experience, which we will publish. The milk is used thoroughly skimmed and entirely freed from butter. To procure the best results, it has been advised that the patient shall restrict himself absolutely to milk, and continue the treatment for a long time. If it disagrees with the stomach (as it will in some cases), Dr. Mitchell advises that the patient be put to bed, and the treatment commenced with tablespoonful doses, to which lime water is added, until the stomach tolerates the milk, when from eight to ten pints daily should be taken, and absolutely nothing else. The sanction of such a distinguished physician as Dr. Mitchell forces us to seriously consider the merits of this treatment, and we trust to receive the experience of all readers of this journal who may have cases of Bright's disease to treat.—*Medical and Surgical Reporter*.

#### Effects of Atmospheric Electricity.

At a recent meeting of the California Academy of Sciences, Mr. C. D. Gibbes, C.E., remarked that when surveying during our north winds, in the San Joaquin valley, the electrical disturbance was so great as to cause the needle of his compass to fly up against the glass and become useless during the first part of the day when in the field; but that if he took the same compass into a warm moist room, it again acted normally. Engineers in Santa Clara and Calaveras counties report the same action and dip of the magnetic needle during the prevalence of our dry northers.

Dr. Harkness said the northers affected the human skin. They caused an uneasiness, which results in dog fights, runaway horses, cross dispositions, pallid faces, etc. Dry atmosphere is a perfect non-conductor, but all moist plants and animals, as well as men, then become so many miniature lightning rods. The nerves are at such times continually irritated by a constant succession of tiny blows, like telegraphic ticks, against the nerve centers. They contract and produce a congestion of the organs; the blood becomes turbid, while kidneys, liver, and lungs all suffer.

Dr. Henry Gibbons, Sr., thought this electric action more subtle than from any apparent mechanical evolution of electricity from friction of the passing wind over the surface of the earth. He said all persons felt cold, for it drove the circulation from the surface to the interior of the body, as Dr. Harkness so beautifully described twenty years ago. Its effect on certain diseases has been marked. The death rate has been claimed to increase at such times. He had a patient whose eyes always blinked and snapped during a north wind, even in a warm, moist room entirely protected from direct contact with the wind.

Dr. Harkness said we were always surrounded by electricity, but did not perceive it until its equilibrium was destroyed, when it became manifest. In some parts of India silk underclothing is necessary to comfort, at certain altitudes, during dry north winds, and in other parts no relief is found in this clothing.

#### Insanity in the United States.

After all the recent talk about the increase of insanity in this country it is encouraging to learn that we are not so crazy as some other nations. At the late meeting of the National Association for the Protection of the Insane and the Prevention of Insanity it was shown our insane number about 63,000, or 1 to 777 of the population. The ratio in England is 1 to 350, part due, perhaps, to the more thorough separation of the insane from the general population. By sections the ratio is in this country: In New England, 1 to 588 Middle States, 1 to 600; Western States, 1 to 850; Southern States, 1 to 1,100. The ratio to which we may look forward in the future is, in the opinion of Dr. C. F. Dana: In New England, 1 to 500; West, 1 to 600; South, 1 to 800. In 1881 there were 74 State and 34 private asylums. The cost of maintaining them was \$12,000,000 a year. The needs of the insane are want of room in asylums, separation of acute and chronic patients and epileptics, improvement in the laws of commitment, more amusement and work for patients, and a separation of State asylums from political influence.

#### Whalebone.

Aside from its oil-yielding properties, the whale also serves man's needs by furnishing him with whalebone. This was once an important article of commerce, but the supply and demand have for many years been diminishing. The fact is the whale does not live "in the North Sea" as much as he once did, and the decline in the New Bedford oil business is reflected in a measure in the whalebone industry. As the supply fell off substitutes for the article were discovered. Steel takes the place of whalebone in umbrella manufactures, and the latter now finds its chief uses in the making of whips and corsets.

The preliminary preparation of whalebone is about as follows: When the raw bone is received the hair is first cut from the slabs. These are then soaked in water until they become soft, after which all the gum which adheres to them is removed by scraping. They now go to a steam box, where a workman straightens them with a knife. After polishing they are ready to be worked up into various

forms. There are certain places where it is probable that no known material answers so well as whalebone, and it is said that a fortune awaits the inventor who devises an efficient substitute for it. Experiments, looking to this end, have been made with rawhide.

Since the decadence of the hoop-skirt fever the price of whalebone has declined very materially, but the price was at its zenith in the last century. The Dutch formerly obtained \$3,500 a ton for whalebone, but since 1763 it has never commanded such high figures. In 1818 the price was \$450; in 1834, from \$530 to \$545; and in 1841 it ranged between \$1,080 for Southern to \$2,550 for Northern bone. We learn that in the upper jaw of the whale are thin, parallel laminae, varying in size from three to twelve feet in length, and that these are what are known as "whalebone." The quality which commands the highest price is above six feet in length, and is called "size bone." It is said that the Greenland whale furnishes the best bone. From the mouth of these huge creatures from 2,000 to 3,000 pounds are often taken.

#### NEW INVENTIONS.

An improved side-bar vehicle has been patented by Mr. Lafayette A. Melburn, of Denver, Col. The invention consists in a certain improvement in the class of side-bar vehicles, more particularly in buggies, which are constructed upon what is commonly termed the "Brewster" pattern. The springs that support the bodies of such buggies require to be made very stiff in order to have the requisite strength, and, being also short, they lack that degree of elasticity necessary to render the vehicle comfortable to the occupant when passing over ordinary roads. In attempts heretofore made to remedy this defect various so-called improvements have been made in the form and arrangement of the springs, but without the desired success, since the result has been a noticeable, if not striking, inelegance of appearance, and considerable addition to the cost and complication of structure of the buggy, besides lessened efficiency in use. This inventor has devised an improvement in the form and arrangement of the springs which overcomes the defect of the Brewster.

An improved station indicator has been patented by Messrs. William H. Hackney, of Laramie county, Wyoming Territory, and Edward G. Hudson, of Lincoln, Ill. The improvement consists in the peculiar means for reversing the movement of the ribbon when wound up, for which purpose the inventors place an intermediate shaft between the two shafts carrying the belt or ribbon. This intermediate shaft has a cog wheel adapted to engage with cog wheels on the ribbon shafts alternately by the lateral shifting of this intermediate wheel, the wheels on the ribbon shafts being set in different planes to permit this action, and the intermediate wheel being shifted by the longitudinal movement of the shaft, which is held by a latch entering one of two circumferential grooves in the shaft.

Mr. Benjamin Day, of West Hoboken, N. J., has patented an improved vertically and laterally adjustable frame for holding a printing medium—for instance, such as the printing film for which Letters Patent were issued to the same inventor on the 22d day of April, 1879, and numbered 214,493. The invention consists in a frame having the printing film attached thereto, and provided with clamping devices for holding it, and which are detachably hinged to longitudinally and transversely adjustable blocks held in clamps on a vertically adjustable frame surrounding the stone or block, so that the swinging film-holding frame will rest on the block or stone.

An improved switch board for use in connection with annunciator or burglar alarms has been patented by Mr. Lambert F. Fouts, of Greenfield, Iowa. The several doors and windows of a dwelling, hotel, or other structure, or any other desired points, are connected in a closed circuit with a battery, an alarm, and the improved switch board, the latter having a pivoted button and fixed post for each door or point in the circuit. When a "break" is made—as, for instance, when a door is opened—it may be located by moving one or more of said buttons until the restoration of the circuit through branch wires connected with the aforesaid posts and the consequent arrest of the alarm give the required indications.

An improved inkstand, which closes itself automatically, and can be opened readily, has been patented by Mr. Charles De Roberts, of Albion, Neb. The invention consists in an ink well resting on a base, and provided with a lid or cover attached to the upper end of a bell crank lever pivoted in the base, the lower end of which bell crank lever rests on one end of a lever pivoted to the under side of the base, and provided at the other end with a knob projecting above the top of the base, which knob is depressed by the hand when the cover is to be raised.

#### The First Chinese Ironclad.

The first ironclad battle-ship of the Chinese navy was lately launched by the Vulcan Company, at Stettin, at the mouth of the Oder. The ship is called the Ting-Yuen, or the Everlasting Peace, and is a turret corvette of the first rank, with compound armor of English steel and iron. Both turrets are armed with twelve-inch compound plates, and the four 30½ centimeter guns which they have can deliver broadsides simultaneously. On the deck, in addition, are eight other guns from Herr Krupp's foundry at Essen. The same company has a contract to build another ship of the same kind for China.