DANGER IN VINEGAR.

There are more kinds of so-called vinegar in the market than brands of family flour. The New York *Tribune* thus alludes to one of them: The Board of Health of the District of Columbia has condemned five car loads of vinegar sent there from Chicago, on the ground that it is not a genuine article, and is injurious to health. An analysis of the so-called vinegar has been made. It appears, according to the report of the Board of Health, that the vinegar contains 54 54-100 grains per gallon of anhydrous sulphuric acid, combined with lime to form a sulphate of lime equivalent to 117 26-100 grains of gypsum per gallon, and besides that, five grains of free sulphuric acid per gallon. The Board also report that this sample was taken from an invoice of more than 1,000 barrels brought there to be sold as vinegar, and that it is likely to find a ready sale on account of its low price. The report concludes as follows: "When we think that oil of vitrol (sulphuric acid) can be bought at five cents per pound, and that a pound of said acid would render a barrel of fluid as acid as the strongest vinegar, the wonder will cease that it is sold cheap. This, therefore, is a fraud upon commerce, and a dangerous substitute for vinegar." The fraud and danger are more general than the great mass of people will readily believe. It is asserted that probably one-half the vinegar sold at city groceries is a rank poison, with either sulphuric or other objectionable acids for its base, from which the acetic principle is evolved, the same as in the manufacture of aromatic vinegar or the acetates used in calico printing. Acetic acid is present in all vinegars, although they seldom contain more than five per cent. of the absolute acid. Their color, flavor and value depend materially upon the ingredients from which they are made. In England, honest vinegars are usually made of malt; in France, of grapes; in Germany, of grapes, beetroot or potatoes; in this country, of apples and grapes.

DANGER IN SELF DOSING.

There is a host of people who seem to have little else to do but to consider their physical condition and to administer doses for its improvement; people who are positively dissipated and intemperate in their use of medicines, and appear to think this world not so much a vale of tears as a vale of drugs; people to whom a new prescription affords a delight only equaled by that which a savant would experience from the possession of a bone of the extinct megatherium.

If they are in the least under the weather it never occurs to them to allow Nature to work out her own salvation, but they take her affairs into their own hands, and having small acquaintance with her processes, the result resembles that of a novice attempting the tasks of a superior, and making them more difficult for that superior to accomplish. One of the peculiar pleasures of such persons consists in persuading others to try their methods of cure. The most delicate compliment you can pay them is to swallow some nauseating mixture upon their recommendation, which all the while bears a strong family likeness to that of those who, with bad complexions, assure you that soap is wholesome for the skin, or of bald people who extol the virtues of certain washes they have employed.

This art of dosing does not interfere, however, with the usefulness of the family physician, but rather supplies him with practice by laying the foundation for positive disease. The stomach which has been unrighteously corrected rebels at length; the nerves that have been too often artificially soothed finally refuse to acknowledge the power of the charmer; the strength engendered by stimulants proves but a broken reed; appetites fortified by frequent tonics surrender some day without reserve.

If the science of medicine itself is as yet only experimental, must not amateur dosing, beyond question, belong to the most objectionable class of empiricisms?—*Dr. Holbrook.*

WEDDING JOURNEYS.

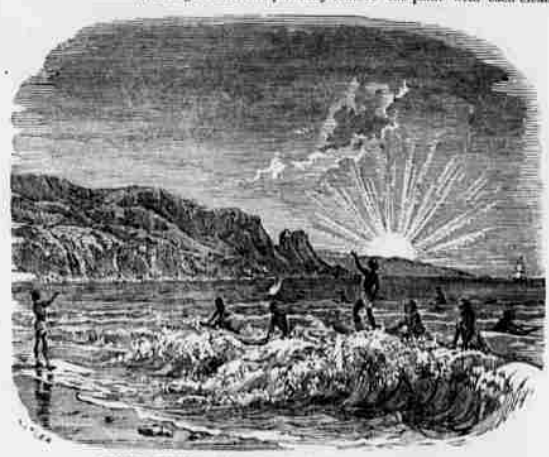
When a young man and woman marry, they generally think they must take a wedding trip, of greater or less extent, according as their purses are long or short. The idea is well enough in its place, if carried out in accordance with the laws of hygiene; but this is not always the case. We have just received a notice of the death of a friend, a beautiful and noble young lady. The cause was a cold caught on her wedding tour. Such cases are not rare; but even when death does not result, injuries which last for life may be received. It would be far better to give up the wedding trip than to injure the constitution by it. There is never a time more unsuited to journeys than just after marriage. The feelings are then at their highest pitch, and they advertise the fact by every look and movement, so that they are recognized wherever they go as a newly married couple. There ought to be a reform in this matter of wedding tours. Physiologists and hygienists should set the example. Let them be conducted strictly in accordance with the laws of hygiene, or given up altogether. It is said that the daughter of Dr. Hammond, recently married to an Italian marquis, has set a good example in this respect. The father, an eminent physician, stamped the idea of a wedding journey as something barbarous and unphysiological, and so, after the marriage, by his advice, the couple were left in quiet at their own home. If this is so it is an example well worth imitating. At any rate, let no newly married couple violate every physiological law by a wedding journey that may injure the health past all recovery.—*Herald of Health.*

Tenia.—Dr. Leidy, of Philadelphia, at a recent meeting of the Academy of Science, exhibited a specimen of tape-worm said to have been taken from the inside of a large cucumber. This was the first time he had heard of one of these worms having been found in a vegetable. The specimen has all the characteristics of a tape-worm, but belongs apparently to an unknown species.

AN HAWAIIAN HOLIDAY.

Now that the lines of progress on the Sandwich islands are drawing them nearer to us in trade and international comity, it is interesting to take a look occasionally at their life, at their industries and their amusements. They had last month a sort of national holiday which they call "Kamehameha day," and they had differways of celebrating it. The sports were chiefly athletic, and in this way we must own were vastly superior to some of the insane customs we Americans have of observing our holidays. The *Hawaiian Gazette* says: "The sports were altogether native, and illustrated in a striking manner to the observation of foreigners, the ancient skill and prowess of Hawaiians."

Kamehameha day was celebrated on the 11th of June last. Among the sports were swimming, racing, pole climbing and surf riding. We select the last for illustration on this page, as it is something which does not come within the list of our sports in the way the Sandwich Islanders practice it. The *Gazette* gives the following spirited description: "The surf riding, the pre-eminent Hawaiian sport, attracted an earnest attention, as the dignified Governor Moehonua had his chair planted, like King Canute, in order to observe more closely by the sea marge, where the far-lapping tide came to wet his feet. Poepoe, the champion surf rider of Hawaii, took part in this contest, and there was a murmur among the spectators as this splendid athlete appeared on the beach with his board that the judge of the games might as well give him the prize at once. But there was another, and very special matter of interest in this contest; a woman was to contend with men in this daring and dangerous pastime. Though past her youth, yet this woman was of comely form, which was but slightly concealed by the scant pa-u. Her long flowing hair, and well rounded limbs glistened pleasingly through the green translucent white-crested combers, through which she lightly made her way seaward, along with three stalwart male companions, till they reached the outer line of surf swell. This surf is grand at times at Lahaina; and the old gods wanted the old capital to have a treat this day. The towering, combing waves rushed and thundered like an avalanche upon the beach. There were alternations of greater and lesser waves. Now those bold navigators on their tiny craft are waiting for a great swell. Here it comes—upward, the swelling long liquid ridge arises. It towers aloft and rushes onward to engulf the shore. And onward came the children of old ocean—coming—sliding, and dancing on her crests. Poepoe with outstretched arms like an ancient warrior about to hurl a spear, comes erect on his swift flying keel, but where is Nakooko, the woman?—Keeping her tiny craft well astant the insurging tide, she shoots like a flying fish through the whitening foam, and as though Thetis would favor her daughter, she jostles the champion on his wonted plank of victory, and so the flowing hair and the rounded form came in foremost amid the out-cries of a delighted multitude glad that the woman had won."



SURF RIDING IN THE SANDWICH ISLANDS

The Greatest War Ships.—English exchanges tell us that a bold advance in the construction of ironclad ships has been decided upon by the Italian government in respect to the two vessels which are to excel the *Duilio* and the *Dandolo*. The new ships are now begun, but it will probably be six years before they are complete. They are to be unrigged turret ships, propelled by twin screws. They are to be much larger than the largest ships in the British navy, and much faster, in addition to which they will be much more costly. The most powerful engines in her Majesty's fleet are those of the *Inflexible* and the *Dreadnought*, working up to between 8,000 and 9,000 indicated horse-power. But this enormous amount is to be at least doubled by the engines of the Italian war ships. According to the present conclusions, the armor will be steel, probably a meter thick, or fully half as thick again as the maximum armor of the *Inflexible*. What guns these colossal ships are to carry is as yet undetermined, but it is not unlikely that in ordnance as well as in other respects the forthcoming ships will transcend all predecessors.

The streets of London, if placed in one line, would form an avenue of 7,000 miles in length. In the daily cleansing of the streets about 14,000 men find employment, and 6,000 horses and 2,400 carts. The engineer-in-chief has a salary of £2,000. The work goes on day and night but the actual sweeping does not commence until 8 P. M.

THE SCIENCE OF FLOOR SCRUBBING.

"Top-dust" can be washed off without great labor. Have the water only moderately warm, especially when the floor is of soft wood, because hot water sinks in so rapidly, and occupies so much more time in drying, than cool water upon wood. Drain the mop pretty well before putting it upon the floor, thus wetting the floor but little. The object is to wipe up the dust as thoroughly as possible, rinsing it off from the mop into the water, and changing the water for cleaner very often. If you put much water upon a very dusty floor, you have a big troublesome mud-puddle to sop up or rinse away. Experiment has convinced me that a floor of pine or basswood looks best after cleaning, if a small amount of water has been put on each portion of it. Use as much water as you please on the whole floor, the more the better, if you wash and wipe only a small portion at a time, and then throw out the dirty water, and begin the next division with clean water. The sooner a soft wood floor dries, the better it looks. I have seen women work very hard to scrub a pine or basswood floor white, and the result has been quite disappointing. They would put a great deal of water upon the floor and then scrub with a broom hard and long; after this would sweep all of the dirty water out, and rinse the floor with as many waters as they could afford. When at last the well-soaked floor was dry, it was undoubtedly clean, but it looked dark and somewhat weather-beaten, in consequence of remaining wet so long. It is a question of health with me, in winter, to have a floor dry as soon as possible. A little lye in the water has an excellent effect upon floors. It may be poured directly upon decided greasy spots, but the whole floor is whitened with very little hard rubbing, if a small amount of lye is mixed with the water. Too much makes the boards yellow. How much should be used depends upon its strength. Never put lye into the water with which you wash a painted floor, else you gradually but steadily remove the paint with each cleaning. If you let an unexperienced hired girl have her own way with a painted floor, she will probably use her boiling suds upon it, and soon remove nearly all of the best paint. Clean warm water is best for painted floors. If you have a nice hard-wood floor, be thankful, especially if it be of white ash, but never let its spotlessness become dearer to your heart than the family peace. You learn by experiment how much nicer one of these hard floors looks, when washed with clean suds, than when washed with the boiling suds of Monday.

Let those who like get down upon their knees, and scrub their floors with brushes and floor-cloths—such work is not for me nor mine, and I consider it pitiful business for any one. I hear of long-handled scrubbing-brushes, and doubtless these are suitable for human beings in the work of floor-cleaning. What I most want is a cheap and easy mop wringer, for I dislike extremely to put my hand into the mopping water. Of such a wringer I have heard, but have had no experience of its merits.—*A. Scrubber in Exchange.*

Gun Cotton.—The following instructions have lately been issued for dressing compressed gun cotton:—(1) When time permits, the simplest way of drying gun cotton is to expose it to the air of a dry room until it ceases to lose weight, or to place it in the open air during dry weather in situations where it will be exposed to sun or wind. With a dry atmosphere gun cotton may be dried by exposure to open air, even without sun, in about five days. (2) When it is desired to dry gun cotton quickly steam heat should be used, and a special apparatus has been constructed for use in the field and at stations for carrying out this operation safely and expeditiously. This apparatus consists of a boiler and a drying-chamber, which are placed, when required for use, with an interval of about 6 feet between them, and are connected by means of an india-rubber tube.

American Association Meeting.—The 26th meeting of the American Association for the Advancement of Science will be held at Nashville, Tennessee, on August 29th. Sessions will take place in the Capitol. Special arrangements are being made for decreased railroad fares, etc., and for the accommodation of members in the city. The permanent subsections of chemistry, microscopy and anthropology are to be continued, and the co-operation of students of these sciences is requested. The Entomological club will meet on the day preceding the meeting of the association.

None are too wise to be mistaken, but few are so wisely just as to acknowledge and correct their mistakes; and especially the mistakes of prejudice.—*Barrow.*

PACIFIC COAST COAL MINING.

The only coal field in the State of California which has hitherto been profitably mined, is the Mount Diablo coal field, now, however, nearly worked out. The mines in this field have, according to Mr. Goodyear, in his "Coal mines of the Western Coast," yielded since 1861, a total of 1,875,962 tons of coal, of 2,240 pounds to the ton. These mines are the principal ones in the State, as although it is easy to find coal in many localities on the Coast range, from one end of California to the other, as well as at certain points in the western foothills of the Sierra Nevada, yet it generally happens either that its quality is poor or its quantity small, or else that it is situated in the heart of the mountains, so far from market that the cost of transportation alone would far exceed the value of the coal.

Concerning the cost of production at the Mount Diablo mines, Mr. Goodyear, whose work we noticed last week, has had excellent opportunities of observing, and the following extract will be found of value to those interested in this kind of mining:

"The cost of mining and transporting the Mount Diablo coal has varied very greatly, not only between the different mines, but also at different times and under varying circumstances for the same mine. The differences in this respect have been so great, indeed, that any single statement of the actual cost for any particular mine at any definite time would be of no value whatever as an index of the cost at the same time for a different mine, or for the same mine at a different time. This fact is well illustrated by the history of the Black Diamond Coal Company. At their mines, the monthly averages of the cost per ton for labor alone in mining the coal and putting it into bunkers at the mines, exclusive of the cost of timber and all other supplies, have ranged at different times since 1867 from a minimum of about $2.37½ to a maximum of very nearly $4; or say, including supplies, from about $2.75 to $4.50, or a little more, per ton. Within the same time, the monthly averages of the cost of the railroad transportation from the mines to the landing have ranged from 25 or 30 cents to over $1.00 per ton; while the cost also of the water transportation from the landing to San Francisco has varied between 37 cents and $1.25 per ton."—*Scientific Press.*

CLOSE WORK.

It is well understood that in melting and refining gold and silver bullion in the process of coining at the mints, there is usually considerable loss incident to the handling in the different processes. The percentage of loss is pretty well known, and the Government allows a legal limit for such loss. Of course the officials, if honest and capable, can come within this limit, but the closeness with which the work has been done this year at the branch mint in this city, according to a statement furnished by the Government officials, is somewhat remarkable. The figures speak for themselves.

The whole amount of gold bullion delivered to and charged Frank J. Cicott, coiner, during the fiscal year 1876-77 was as follows: Standard ounces, 3,497,968,699; value, $65,078,487.28. The whole amount returned and credited him during the same period is 3,497,884,595 ounces; value, $65,076,178.52. Loss, 124,095 ounces; value, $2,308.76. Legal limit of loss, 1,748,984 ounces; value, $32,539.23.

The whole amount of silver bullion delivered to and charged him during the same period is 22,567,231.55 standard ounces; value, $28,077,426.50. The whole amount returned and credited him during the same period is $22,562,056.21 ounces; value, $28,070,987.51. Loss, 5,175.34 ounces; value, $6,438.99. Legal limit of loss 22,567.23 ounces; value, $28,077.42.

The whole amount of gold bullion delivered to and charged Alex. Martin, melter and refiner, during the fiscal year 1876-77 was 3,618,218,860 standard ounces; value, $67,315,609.72. The whole amount returned and credited him, during the same period was 3,618,174,718 standard ounces, value, $67,314,878.47. Loss, 44,142 ounces; value, $821.25. Legal limit of loss, 3,618,219 ounces; value, $67,315.70.

The whole amount of silver bullion delivered to and charged him during the same period as above was 23,636,113.9 standard ounces; value, $29,407,295.68. The whole amount returned and credited him during the same period was 23,631,673.08 ounces; value, $29,401,770.55. Loss, 4,440.82 ounces; value, $5,525.13; Legal limit of loss, 35,454.17 ounces; value, $44,110.94.—*S. F. Mining and Scientific Press.*

To Counteract the Dampness of Walls.—The *Gewerbe-Blatt* (as translated by the *Polytechnic Review*,) gives a recipe for a solution said to prevent the action of moist atmosphere upon walls. A wall exposed to cold and moisture should be, it says, coated with a compound of three-quarters of a pound of soap dissolved in ten pounds of boiling water, care being taken in applying it to avoid the formation of bubbles. A little alcohol assists in dissolving the froth, and causes the solution to penetrate deeper into the wall. A second coating is added after twenty-four hours, composed of a solution of sulphate of alumina, about half a pound in 30 pounds of water. The coating obtained is, it is added, impermeable. If the first coat is not dry and hard in twenty-four hours it must be left a longer time. The action relied upon here is the formation of an insoluble alumina soap.

To Avoid Sleeplessness.—If you wish to sleep well, eat sparingly of late suppers. Avoid all arguments or contested subjects near night, as these are likely to have a bad effect upon one who is troubled with sleeplessness at night. Avoid having too much company. Many persons become so excited with the meeting of friends that sleep departs for a time. There is probably nothing better, after cultivating a tranquil mind, than exercise in the open air. By observing these simple rules, sleeplessness, in the majority of instances, may be cured.