

There is considerable evidence to show that the drainage of sinks into wells produces cholera, fevers and other diseases.

Victoria Woodhull has accepted an invitation to found a "progressive" community on Valcour Island in Lake Champlain.

John Quigley, sixteen years old, took his younger brother into a barn at Troy, N. Y., and tried to hang him. John had been made insane by hard study.

According to the style lately set by the Princess of Wales, it is fashionable among English ladies to have their monograms and coats of arms embroidered in arabesques on their skirts and corsets.

There are complaints that the Harvard oarsmen approach too nearly to nudity in their rowing costume, and the *Crimson*, the college paper, admits that there is need of a reform.

At a public meeting in London lately a British republican wanted to dispense with ears, because there were none mentioned in the Bible; but Lord Houghton pointed out that on the same ground they might be deprived of citizens.

General Sherman assured a reporter of the Chicago *Times* that it was at the "urgent personal solicitation of George Bancroft, combined with that of the historian, Dr. John Draper of New York," that he allowed his recently published memoirs to see the light.

Mr. Gladstone is another of the intellectually busy men who take to tree chopping as a relaxation. On a recent visit to Nottingham he went into Nottingham Park and felled a tree five feet in circumference in three-quarters of an hour. Possibly he "played" the tree as Vaticanism, which would account for the vigor and persistency of his whacking at it.

Mr. Bond, an Indian surveyor, while at work, last season, in the Madras Presidency, to the southwest of the Palanci Hills, managed to catch a couple of the wild folk who live in the hill jungles of the Western Ghats. They were male and female, four feet six inches high, with dark brown skin, the woman's yellowish, coarse, black, woolly hair, forehead low and slightly retreating, and lower part of face and stern projecting.

A large meeting was recently held at Manchester, Eng., at which a number of resolutions were unanimously passed protesting against any pre-eminence being given to Cardinal Manning over the nobility, bishops, civic dignitaries, clergy, Nonconformist ministers or other subjects of the Queen. A series of reasons were set forth, the most important being that the title of cardinal is not recognized in English law.

A tramp entered a hotel in Wheatland, Cal., sat down at the breakfast table, and speedily demolished a hearty meal. He then ordered another beefsteak, and on its being placed before him, he suddenly covered his nasal organ with his hands and started for the door, apparently taken with bleeding at the nose. He passed through the hotel and across the street to a pump, from whence he soon bolted down the track and made off.

It is estimated that there are in England and Wales alone as many as 32,000 friendly societies; that their funds in hand exceed £11,000,000 sterling; they have above 4,000,000 members; and including wives and children, there must be at least 8,000,000 persons interested in the promised benefits of these societies; and that by their operations £2,000,000 sterling are annually saved to the ratepayers.

At a sheep range near Summit Lake, at the head of the San Joaquin river, Cal., on Thursday night, May 27, a couple of grizzlies got into a corral with a lot of sheep, and two men—William Reid and William Cartwright—who were sleeping near by, were so badly mangled while attempting to defend the sheep that they died from the effects of their wounds. Their remains were taken to Centerville, the nearest town, for interment.

The community is so often shocked by revolting stories of infamous assaults upon females that Judge Lynch receives but little censure when by his decree the perpetrators are disposed of without trial by jury. Referring to the recent outrage near Odenton, Maryland, the Baltimore *Gazette* endorses Lynch law in similar cases, and

recommends that women, young and old, be taught the use of weapons, so as to protect themselves, and, in case of possible exposure to danger, that they carry them.—*Washington Star*.

Mr. Disraeli, I hear, is actually in a state of health which makes his friends uneasy. He is suffering from a sort of chronic influenza, accompanied by bronchitis, which, though it does not lay him up, keeps him very weak, and has greatly shaken his not very robust constitution. He has plenty of spirit, but not much animal vitality, and none of that steady appetite for regular meals of plain food which made Lord Palmerston the man he was. Instead of a mutton chop and half a cup of tea with a slice of toast, Palmerston's regular evening meal—he dined at three off roast mutton and potatoes—he has to trust to stimulants when there is anything special to be done.—*London Cor. N. Y. Times*.

#### Hard Glass.

The subject of hard, elastic and malleable glass is beginning to attract considerable attention, and has several times been referred to in our columns. Some experiments made by Dr. A. Bauer, in Vienna, have recently been made public, and will, no doubt, prove of interest to our readers. He remarks at the outset that the plates of glass prepared by him do not differ essentially in external appearance from ordinary glass; when struck they have a peculiar ring, and may frequently be thrown on the ground without breaking; but when they do break, unlike other glass, they break into a multitude of small fragments with very sharp corners, which is a great disadvantage of this glass. They stand scratching well, but, like those made in France, they break when struck hard. Dr. Bauer prepared his plates in this way: An ordinary sheet of glass was heated until it began to bend, and was then dipped into a bath of melted paraffin at a temperature of 200 degrees C. (392 degrees F.) The principal object was not to cool the hot and soft plate steadily and slowly, as is usually done, but to cool it suddenly to a certain temperature and then to allow it to cool slowly. If the cooling takes place in this manner it is no longer possible to cut the glass with a diamond, and it is easy to prove by the ordinary scale of hardness that its hardness is greatly increased. The thickness of the glass has also increased with its hardness; the ordinary glass used by Bauer in his experiments was 2.429 to 2.435, which, after hardening, became 2.460 to 2.468. It cannot be denied, says Bauer, that this glass will be useful for many purposes, and also that there are many uses to which it cannot be applied on account of its breaking into such small pieces when it does break. There are also difficulties met with in preparing this glass on a large scale, especially in introducing hollow glass and large plates quickly and uniformly into the bath.

It is not as yet possible to explain the cause of the glass being hardened by this method of cooling. The phenomenon involuntarily reminds one of the well-known Boulogne flasks and the Prince Rupert drops, but the breaking of the latter cannot be sufficiently explained, since we know that this does not happen if the ends are eaten off instead of being broken. We are also reminded that when cooled slowly the constituents of the glass separate to a certain extent, which can only be prevented by a rapid cooling. It was formerly believed that glass was a perfectly homogeneous and amorphous substance. In 1852, however, Prof. Leydolt proved by etching that all our glass, which apparently shows no signs of crystallization, consists of a mixture which is in part crystalline. When glass is heated to fusion, or even to softness, and then slowly cooled, it easily happens that the constituents separate and form crystalline groups. Reaumur made this experiment in the last century, hoping to make porcelain out of glass, and the product was called Reaumur's porcelain. Siegwart and others, a few years ago, although with a different view, made experiments on this change. These experiments showed that this separation takes place very easily if the glass is slowly cooled, and that sometimes the crystalline portion becomes visible, and when this takes place the glass is said to be devitrified. From these new ex-

periments we may conclude that fused glass in a fused state forms a tolerably homogeneous mass, which separates more or less on cooling. If it is cooled rapidly to a certain point, the separation does not go so far, and the glass remains more homogeneous, which may be the cause of its hardness on the one hand, and of its peculiar way of breaking on the other.—*Journal of Applied Chemistry*.

#### Rules for Spelling.

The following rules should be carefully committed to memory, as the knowledge of them will prevent that hesitation about the spelling of common words which is frequently experienced even by the well educated:

Rule 1.—All monosyllables ending in l, with a single vowel before it, have double l at the close; mill, sell.

Rule 2.—All monosyllables ending in l, with a double vowel before it, have one l at the close; wall, sail.

Rule 3.—Monosyllables ending in l, when compounded, retain but one l each; as fulfil, skiff.

Rule 4.—All words of more than one syllable ending in l, have one l only in the close, as faithful, delightful; except recall, befall, unwell, &c.

Rule 5.—All derivations of words ending in l have one l only; as equality from equal, except they end in er or ll; as mill, miller; full, fuller.

Rule 6.—All participles in ing from verbs ending in e lose the e final; as have, having; amuse, amusing; except they come from verbs ending in double e, and then they retain both; as see, seeing; agree, agreeing.

Rule 7.—All verbs in ly, and nouns in ment retain the final of their primitives; as brave, bravely; refine, refinement; except judgment, acknowledgment.

Rule 8.—All derivatives from words ending in er, retain the e before the r; as refer, reference; except hindrance from hinder; remembrance from remember; disastrous from disaster; monstrous from monster; wondrous from wonder; cumbersome from cumbersome, etc.

Rule 9.—All compound words, if both end not in l, retain their primitive parts entire; as millstones, chargeable, graceless, except always, also, deplorable, although, almost, admirable, etc.

Rule 10.—All monosyllables ending in a consonant with a single vowel before it, double that consonant in derivatives, as sin, sinner; ship, shipping; big, bigger; glad, gladder.

Rule 11.—Monosyllables ending in a consonant with a double vowel before it, do not double the consonant in derivatives as, sleep, sleeping; troop, trooper.

Rule 12.—All words of more than one syllable, ending in a single consonant preceded by a single vowel, and accented on the last syllable, double that consonant in derivatives, as commit, committee; compel, compelled; appal, appalling; distil, distilling.

Rule 13.—Nouns of one syllable ending in y, change into ies in the plural, and verbs ending in y, preceded by a consonant, change y into ies in the third person, singular of the present tense, and ies in past tense, and past participle; as fly, flies; I apply, he applies; I reply, or have replied, or he replied. If they be preceded by a vowel, this rule is not applicable; as key, keys; I play, he plays; we have enjoyed ourselves.

Rule 14.—Compound words whose primitives end in y change y into i; as beauty, beautiful; lovely, loveliness.—*Journal of Education*.

RESTORING THE DROWNED.—The following "directions for restoring persons apparently drowned," issued by the Massachusetts Humane Society, should be cut out and posted up by all people who indulge in the pleasure of boat rides, or who have boys who go in swimming, as all boys should:

"Convey the body to the nearest house, with head raised. Strip and rub dry. Wrap in blankets. Inflate the lungs by closing the nostrils with the thumb and finger, blowing into the mouth forcibly and then pressing with the hand on the chest. Again blow in the mouth, and press on the chest, and so on for ten minutes, or until he breathes. Keep the body warm; extremities also. Continue rubbing; do not give up so long as there is any chance of success."



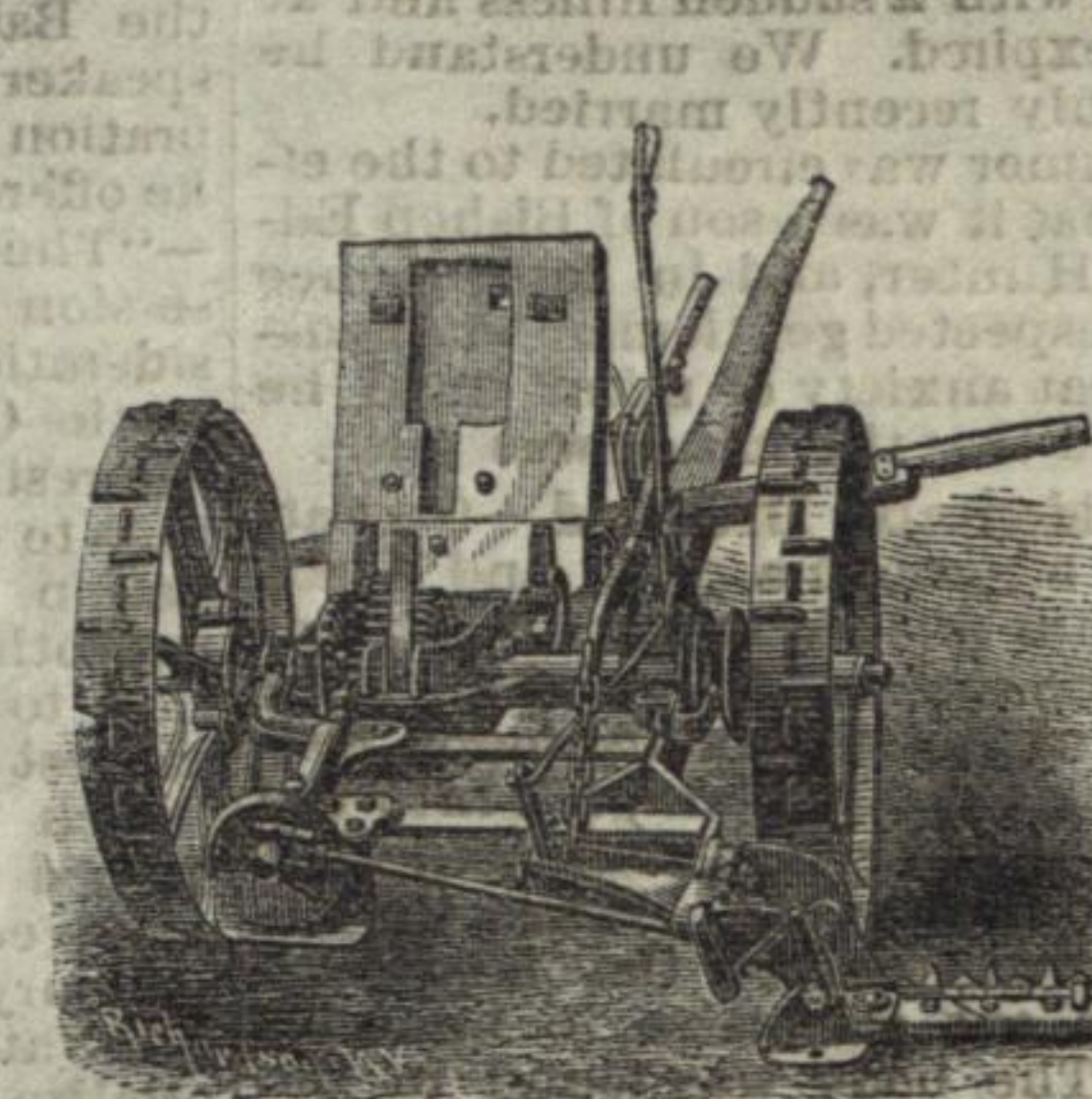
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