

## A COLUMN OF VARIETIES.

built of strong and light materials and of a proper size, be an excellent thing to open up a communication with the shore, when no other or more preferable means were available? I am a seafaring man myself, and really believe that such a mode, had it been thought of, would have been found practicable in saving lives in many cases of shipwreck. It would be but a trifling expense for a passenger vessel to add to their stock of life-saving apparatus a silk kite, so constructed as to fold up snug when not in use, with a liberal supply of light, strong line. The chances are that in such cases as those of the *Indian*, *Northerner* and *Hungarian*, it might become of vital importance. Let some enterprising Yankee get up a folding kite, so as to be snugly stowed in a tin case.

Albany, N. Y., March 5, 1860.

F. A. M.

## DEFECTS OF CALF-SKIN LEATHER.

MESSRS. EDITORS:—On page 67 of the present volume of the *SCIENTIFIC AMERICAN*, I noticed an article on the "Defects of Calf-skin Leather," giving some account of what was termed "dry rot," which article greatly impressed me at the time; yet it did not fully meet the case. On page 137, the same subject is again referred to, with some comments, by two correspondents. One (C. L. Robinson) has some good ideas, yet does not give a full solution. I have had some 30 years' experience in the manufacture of boots and shoes; during that time, I have particularly endeavored to ascertain the cause of defects in calf-skins, those being more sensitive to any chemical action than perhaps any other kind of leather, for want of maturity in the texture of the skin. I am led to conclude that the principal difficulty is in the process of tanning, in the use of lime, and especially in what is called *baiting*; the tissues of the skin being so very delicate that any carelessness or ignorance in these processes proves injurious. This is an old complaint, and one that has been prolific of thought and experiments for several hundred years, with but very little practical benefit. The field is still open for research, and would yield a fortune for any one who solved this great chemical problem. The wax-like substance which exudes near the seams and soles of boots and shoes is not what has been called "dry rot," or any particular kind of decay in the skin, but is produced by the oxyd of iron in the blacking used for coloring the edges of the soles and seams, which blacking has a strong affinity for the oil in the leather, especially for resinous oils, which in its amalgamation decomposes the fibers of the skin; this, even where this substance does not appear, is the more immediate cause of the cracking of the upper-leather near the soles. I am satisfied that the more active agents are the oxyds and oil, as this peculiar effect is confined exclusively to that finished with oil, such as harness, "top," and other kinds of *grain* leather, when this kind of coloring is used, except (as before stated) when the oxyd in the blacking is brought into contact with the oil in the leather. The better the quality of the oil, the less its injurious effects. Pure, sweet neat-foot oil is probably the best. For several years I never allowed the blacking used for coloring edges to touch the upper-leather; and this carefulness, in a great measure, prevented the cracking from the soles. I have known a calf-skin to be kept for more than *twenty years*, and to be then made into boots which did excellent service; still, I do not think they improve by keeping. A pair of calf-skin boots which I had made for me in 1835, have been worn frequently ever since, and are now in a very good state of preservation. One defect in the manner of dressing calf-skins is the too free use of the *curry knife*. Skins wear much longer when finished as near their natural thickness as can be, and yet obtain a smooth surface; the fibers near the flesh being very much stronger than those near the grain. A too free use of oil, even the best, tends to injure rather than improve calf-skins; when oil is used the leather should be clean, and moistened with water before applying the oil.

M.

Wakefield, R. I., March 6, 1860.

## GREENWOOD CEMETERY IN WINTER.

[Communicated.]

The majority of people ignore Greenwood in this dreary season. One knows during the summer the pleasant avenues are thronged with strangers of all climes, curious to see a novelty; well-known citizens, anxious to breathe the rose-scented air and watch the gorgeous flowers that bloom silently above so much hallowed dust;

and tearful mourners, wending their steps towards the tombs of beloved lost ones. Thus, as the south wind plays merrily over it, it seems a city of the living; but all now wears a deserted appearance. We could fancy ourselves in some forsaken city of the past ages. We have recently been through the grounds, and found them sublimely beautiful in their winter covering. The few leaves that are left flutter solemnly in the cold blasts from the north. The tufts and tops of snow-flowers were in close embrace here and there to the dull earth, peeping modestly from their fair dress and nestling lovingly in strange communion with the dark evergreens. The gigantic trees rear their lofty heads, standing out in strong contrast from the backgrounds of gray, murky sky—staunch emblems of a Creator—fit monuments of the fitful sleep of nature.

If it were our mind to seriously ponder this subject, we could add, as we now stand in this place, amid its majestic silence and the pungent realities of this season, we are taught some of our noblest lessons in life. It is at such times those sweet and hallowed memories often visit men, as they struggle through rugged scenes, giving them heroic souls, filling them with encouragement and making them better by their ministrations. Happy thoughts, of days long since gone, mingle with grief, as we cast still another glance at the graves of departed worth; but enough of this.

Freeborn's monument rises proudly on Battle-hill, towering far above the minor incidents of leaves and foyers, beautifully harmonizing with the majestic grandeur of the surrounding landscape.

The delicate framework of Charlotte Canda's tomb appeared to miss its covering of roses and foliage, and looked cold and lonely. We never see this monumental pile without having a sad thought; we see a beautiful girl—reveling in the pleasant realities of life, and living, as it were, in the illuminated land of hope, whose whole life was a river of pure water—cut down in a second of time by "the fell destroyer" (who is no respecter of persons) and consigned to the earth.

Capt. F. Cobrāja's striking monument deserves attention. It was erected by himself after his own design, and represents a statue of life size, in sailor costume, standing on a capstan, with a sextant to his eye, taking an observation by the sun. The aged seaman, we believe, is still living, taking great pride in his tomb; and although he is eighty odd years of age, he has, until recently, taken the sole charge of it himself. He, too, must soon be launched on a sea that he has never yet explored, speeding his way to that "bourne from which no traveler returns."

In this place there are many beautiful specimens of American marble; and it is really gratifying to see that the unjust prejudice long existing against the marble of this country is dying out, and that, in this respect, a new era has commenced. Certainly our country is rich in marble quarries, and it is a matter of much surprise and great regret that they have so long lain dormant, and that their abundant resources have not been far more fully developed; much of it will compare very favorably with some of the Italian.

Our *cicerone* on this occasion (a man apparently 40 years of age) was shy and modest—a rare virtue in a hack-driver; but a few questions awakened his recollection, and he detailed to us many pleasing reminiscences of his boyhood life. He had lived there all his days; childhood had been spent in climbing "Battle-hill," and roaming amongst the unshorn grass of the "Tour" and the other avenues, whilst they were the home of the living instead of the dead. "Sylvan Lake" had been a swimming pond to him when country farm-houses surrounded the place. The whole grave-yard was silent and all seemed inanimate; yet as we were departing, a snow-bird flew over our heads, making a doleful noise that might have easily been construed into a question, asking by what right or authority we had presumed to breathe in the "City of the Dead." It was the only thing of life on the premises.

An immense outlay is yearly required in grading and keeping the cemetery in repair, and this has been of late a heavy drain on the treasury; yet the company seem not to care for this, but to be determined to continue ornamenting until it shall surpass in beauty and design anything of its kind in the world.

B.

THE tunnage dues annually paid in Liverpool amounts to \$1,750,000. It is the largest seaport in the world.

The equinoxes, by the movement which is called precession, have slid thirty degrees to the westward of the constellations with which they were originally associated. This fact, combined with the known rate of precession, shows that the constellations were named about 307 years before the Christian era, that is to say, soon after the establishment of the Alexandrian school of astronomy.....It is stated that when the twelve hundred clerks employed in the Bank of England leave the building in the evening, a detachment of troops marches in to guard it in the night, although burglars could not penetrate the solid vaults in six weeks.....Sir Isaac Newton never believed in the wave theory of light, and recent discoveries have strengthened very much the doubts of its truth which have always been manifested by some of the greatest writers on the subject.....The calcium or lime light was discovered by Dr. Hare, of Philadelphia, soon after his great discovery of the compound blow-pipe.....The yellow ray of light is not merely inoperative when falling upon photographic paper, but it actually protects the paper from the influence of the actinic rays.....A sheet of black mica, which cannot be seen through at all, transmits those rays of heat which come from a stove not red-hot, more readily than they are transmitted by a plate of the most transparent glass.....The light of the tropics is not so powerful for photographic purposes as that of the temperate zones; a longer time being required to take a picture.....Photographs are more readily obtained in April and March than in June or July.....One of the large anacondas in Barnum's American Museum has recently been delivered of a litter of young. Snakes are ova-viviparous, that is to say, eggs are formed and hatched within the body of the animal. This, probably, has given rise to the popular notion that these reptiles swallow their offspring.....The *Nondescript* in Barnum's Museum is certainly a curiosity—though a disagreeable one. It looks like a deformed idiotic little negro.....Steam shipping has increased to such an extent that a large weekly newspaper is published in London, devoted exclusively to the subject. It is called *Mitchell's Steam Shipping Journal*.....The great eclipse of the sun which takes place on the 18th of next July, will be total in Spain, and it is said that at least forty astronomers, from various parts of Europe, intend visiting that country on the occasion, in order to observe the phenomenon.....The forenoon is the best time to have a photograph taken, as the morning sun produces better effects than can be obtained after 12 o'clock.....Sulphuric acid combined with iron forms sulphate of iron, but simple sulphur and iron, in combination, receive the name of sulphuret of iron. The same rule is applied to other substances—thus, carbonic acid and soda form the carbonate of soda, while a combination of carbon and hydrogen is called carbureted hydrogen.....Land has been sold in Fleet-street, London, at the rate of £900,000 equal to about \$4,500,000 per acre; this is at the rate of \$100 to the square foot, and would amount to about \$200,000 for one of our up-town lots of 20 feet front.....The Maryland code has been so revised as to put an end to lotteries. The penalty is a fine of \$1,000 or imprisonment.....When Elias Howe, Jr., the inventor of the first practical sewing machine, returned from England, his funds were so exhausted that he worked his passage as cook.....As Spain has a dry season in the summer, similar to that of California, there is no doubt that there will be a fine opportunity for viewing the great eclipse from that country, next July.....Although steel is believed to be harder and stronger in some proportion to the amount of contained carbon, cast iron, when it is very rich in carbon, is soft like plumbago, will break by its own weight, and may be cut with a knife.....A correspondent of the *Times* (London) states that in the Commune d'Ecully, in France, two men were buried alive in a well by a fall of loose earth, and that after twenty days one of them was taken out still alive; having survived the want of air, light and food, throughout that long period, in addition to the impossibility of moving and the presence by his side of the dead body of his unfortunate companion, for a considerable portion of the time.....In the comprehensive experiments made by Robert Stephenson upon different varieties of cast iron proposed to be employed in the High Level Bridge, hot-blast iron was found to have nearly the same strength as cold-blast.