

Science Siftings

By 'Volt'

The First Automatic Machine.

That the old Egyptians were clever is undoubted, and as far as can be traced the first automatic machine ever invented was a water-raising device known as the 'noria.' It consisted of a great wheel some twenty-five feet in diameter, having pots or jars hinged on trunnions at intervals of perhaps two or three feet around its periphery. The lower part was immersed in a stream, which turned it on the same principle as a watermill wheel. As the jars went down they were filled, and, being carried up, at a point near the top, they were tipped, turning on the trunnions and emptying the water into a trough, which carried it away.

Lasting Qualities of Wood.

Some interesting experiments have been made to ascertain which wood lasts the longest. It was found that birch and aspen decayed in three years, maple and red beech in five years, and elm and ash in seven years. Oak, Scottish fir, and Weymouth pine decayed to the depth of half an inch in seven years; larch and juniper were uninjured at the end of seven years. In situations so free from moisture that they may be practically called dry, the durability of timber is unlimited. The roof of Westminster Hall is more than four hundred and fifty years old.

Water in Grinding.

Why is water used on a grindstone in sharpening a knife? That is one of the questions asked on the porch of a summer hotel recently, and, although several well-informed men and women were in the little gathering, the only one who could answer it satisfactorily was a fifteen-year-old schoolboy. Here is the explanation he gave: The object in using water is to secure a better contact of the blade with the stone, so that the entire edge of the blade may be smoothly sharpened. The application of water not only fills the little spaces between the particles of stone, but it softens them and thus makes a smoother surface. If a dry stone were used, the edge of the blade would be rough, for the friction would be unequal.

Which Boiled First?

There is as much difference in boys as will be found in men, some being quick to observe the importance of common things, and others paying no attention whatever to anything they meet from day to day. Alfred Brown is the name of a boy living in Brooklyn, according to the 'Eagle.' He is interested in natural science, but cares very little for stories and poetry. He is what may be termed an original, practical boy, and is constantly on the lookout for 'points,' as he terms it. While he is an ardent student of electricity, having invented many machines and appliances for his own special use, he devotes much of his time to studying watches, clocks, engines, printing presses, and other useful articles. He is not satisfied simply to read about the wonders to be found in ordinary things, but he is experimenting at odd times to get practical evidence. Not long ago his mother bought a new kettle for the cook, and instantly he went to the kitchen.

'Well, well,' said Mary, 'now what be ye wanting, Master Alfred?'

'I have something to tell you,' he replied.

'About what?'

'About that kettle. If you are in a hurry, you'd better use the old one.'

'Go along with ye!' said Mary, laughingly.

'Well, let us see,' said Alfred. 'Fill the old one and the new one with water, and put them on the stove at the same time. If the water in the old one doesn't begin to boil first I will give you a box of candy.'

To gratify the boy Mary followed Alfred's instructions, and to her amazement and chagrin the water in the old kettle began to boil much quicker than that in the new one.

'It beats all,' said Mary. 'Now, why is that?'

'That's very simple,' said Alfred. 'It is because the old kettle is covered with soot, which not only keeps the heat in, but absorbs it quickly from the fire. It takes a new kettle of water longer to get hot because the bottom is clean and bright. Polished metal does not absorb heat, but reflects or throws it off. I read about it one night, and proved it the next day when you were out.'

Intercolonial

The Victorian Savings Bank is the largest institution in the Commonwealth, the deposits being £13,000,000, representing 500,000 accounts.

At the championship meeting of the Ballarat centre of the Victorian Athletic Association, held at Ballarat on November 1, the schools' championship was won by St. Patrick's College.

The Rev. Mother Stanislaus Nolan, who has been in charge of the Brigidine Convent, Beechworth, died on November 2 at the age of sixty-two, after a lingering illness extending over three years. Deceased was exceedingly popular with all denominations.

Pauline Gill, formerly a pupil of the Sisters of St. Joseph, Sydney, has obtained first place in the Intermediate Examination, middle grade, just held in Ireland. She has also obtained honors in French, German, Spanish, chemistry, and English literature.

A very successful entertainment in aid of the fund being raised for the benefit of Mrs. Kevin I. O'Doherty, 'Eva' of the 'Nation,' was given in the Palace Theatre, Sydney, on November 2. Among the performers were Mr. Andrew Mack and Miss Marie Narelle.

The initial step in the celebrations of the golden jubilee of St. Vincent's Hospital, Darlinghurst, conducted by the Sisters of Charity, was taken on November 4, when Solemn High Mass was celebrated in the presence of a large number of the clergy and a representative gathering of the laity. His Eminence Cardinal Moran presided at the throne, and also preached.

Miss Amy Castles will not appear in grand opera in Cologne (Germany) during the autumn, as she had formerly arranged. A cable message explains that she has been engaged to sing at Monte Carlo in February. Miss Castles sings this month at St. Petersburg, Dresden, and Vienna, and then returns to London to take up the Harrison tour concerts.

Among the many charitable institutions dotting Victoria under Catholic auspices (writes the Melbourne correspondent of the 'Freeman's Journal') there is none which commands more regard than that of St. Aidan's Orphanage, situated on the finest site around the Golden City of Bendigo. It was erected at a cost of £10,000 from the Dr. Backhaus estate, and the citizens provide in part the maintenance. Recently a successful garden fete was held for this purpose, and about £500 was realised.

Once more the Catholics of the archdiocese are called upon to mourn the death of a good priest (says the Brisbane 'Age'). The list of those venerated men who have worked industriously and unselfishly for the good of the Church and her people in Queensland for many years of laborious life, and who have been called to their reward within recent years, has a sadly numerous total. Another has been added to the mournful reckoning. The Rev. Patrick Bailey, administrator of the Stanthorpe parish, died at St. Bridget's presbytery, Red Hill, on October 29.

The Rev. Fathers Gibbons, Keenan, McMahon, who arrived by the 'Ophir' on October 30 (says the 'Advocate'), have been temporarily appointed by his Grace the Archbishop of Melbourne as assistant priests at South Yarra, West Melbourne, and Northcote respectively. The following changes in the location of priests have also been made:—For some time past the Rev. J. J. Egan has been in very indifferent health, and the doctors have recommended a change from the severe strain of a difficult mission like Mansfield. In consequence, he has been changed to St. Mary's, Williamstown. The Rev. J. J. Cusack has been transferred from Williamstown to St. Mary's, St. Kilda East; and the Rev. J. Barry, of St. Kilda East, has been appointed to Mansfield.

The death occurred on Sunday, November 3, at Melbourne of the Rev. Father P. O'Flinn, S.J., the oldest priest in Victoria, in his 86th year. Father O'Flinn was a native of County Down, Ireland. He entered the Society of Jesus in middle life, prior to which he had been a prosperous merchant in Castletown, County Down. He made his novitiate in Dublin in 1869, being then in his 48th year. He had thus spent 38 years in the religious life. The first field of his missionary toil was San Francisco, where he spent seven years. So much did he endear himself to all classes of citizens there that even up to his last illness letters were received from his former parishioners of the Californian capital, enquiring after his health.

DEAR ME!

Forgotten that SYMINGTON'S COFFEE ESSENCE! Whatever shall I do? Call at the nearest Store and ask. THEY ALL KNOW IT