## 

## Scientific and Useful

#### THINGS NOT WHAT THEY SEEM.

You would not imagine that a factory could build up a profitable trade in pipes which could not be smoked, the stems being made solid instead of hollow, but there is a factory which makes hundreds

of thousands of such pipes yearly. They are sold to the shooting galleries, where a pipe has always been found one of the cheapest and at the same time most satisfactory targets. One shrewd exporter found that he could make the goods more cheaply by not piercing the stems, and practically has that field all

to himself.

The manufacture of pasteboard safes is a thriving industry, while "musical" instruments are manufactured, outwardly exact reproductions of cornets and other brasses, but which are sold and other brasses, but which are sold much more cheaply, since their use is merely to pad out big bands with men who cannot play. They are, therefore, not supplied with valves or reeds. One hand is said to boast one-third dunmy

players.
Imitation soap, looking exactly like
the real article, but made of clay, grease,
seent, and a little pink dye, is of Chinese
origin; and the native clerks in China
and India carry their pencils behind
their ears in imitation of their Caucasian bosses, yet the pencils contain no lead, since they are only carried for ornament, the brush being used for all actual work.

### + + + A NEW BIRD HOUSE AT THE LONDON 200.

After a good deal of delay, work has been commenced on the new Bird House which is to be built near the Monkey House at the Zoological Society's Car-This house is for the smaller dens. This house is for the smaller birds in the collection, for which there has hitherto been no special accommo-dation. The site of the new building is between the Monkey House and the

ear Pit.
When the house is completed there When the house is completed there will searcely be a group of birds in the menagerie without accommodation specially suited to their requirements. In the case of the pariots; the great open-air aviary has been a huge success. During the comparatively short time they have been in residence on the case book that they have been in residence on the

time they have been in residence on the canal bank they have effected a great alteration in the look of their abode. This change cannot be termed an improvement, whatever the intentions of the parrot may have been.

When they were turned into it, it was a pretty place, with pools, rivulcts, grass, and sbrubs. A number of tall trees are fitted with nesting-boxes, it which it was hoped the birds would start housekeeping. Their great annusement, however, was to rip off the bark with their destructive beaks. As a consequence the trees have died, and the bare trunks upstanding do not ex-

a consequence the trees have died, and the bare trunks upstanding do not enhance the beauty of the aspect. But the parrots seem very happy, and their brilliant colours are shown to greater advantage against a dreary background. The cranes, on the other hand, seem fully to appreciate their artistic surroundings. In their paddock, on the other side of the canal, they do little or no damage. They dip their long beaks into the running water in search of imaginary prey, and strut about among the evergreens and summer houses with a distinct air of proprietorship. the evergreens and summer hou a distinct air of proprietorship.

## + + + CENTENARY OF BELL ROCK LIGHTHOUSE

It is exactly one hundred years ago It is exactly one number years againce Parliament passed an Act authorising the construction of the Bell Rock Lighthouse on the Indicape Reef. The foundation-stone was laid in 180s, the hast stone was light in 1810, and the topuz and ruby-interchange" was first seen by mariners in 1811. There is therefore, a choice of dates for the celebration of a centenary. The rect was a dangerous one, lying in the course of vessels bound for the Forth and Tay, and had been strewn with wrecks "like ocean weeds heaved on the surf-beaten shore." Tradition has it that in old times an Abbot of Aberbrothock—that is, Arbroath—fixed a bell upon the rock which was rung by the motion of the sea. A pirate, whom southey in his ballad calls Sir Ralph the Rover, wantonly "cut the bell from the lineheape float," and then sailed away, to scour the seas for many a day." Of course, Sir Ralph returned in due time to the spot, and his vessel struck "with shivering shock" upon the hidden reef. In the beginning of the nineteenth century, two beacons were erected and immediately washed down, and a third only hated for a few months. The present tower was planned and built by Robert Stevenson, the "lighthouse-engineer grandfather" of Robert Louis Stevenson. Robert Louis Stevenson,

### + + + A SELF-REPAIRING RAILWAY,

The City of Philadelphia has one of the most remarkable screet railways in the world, for the electric power which whirls the trolley cars upon it also whirls the trolley cars upon it also furnishes the mechanical muscle by which it repairs itself and, when it desires, enlarges itself by the miles, says itenry Hale, in the "Technical World Magazine." The term "trolley current" is often heard in this country because the electricity is usually generated merely to move the cars and occasionally to heat and light them. On the Philadelphia line however, it melts iron and heat and light them. On the Philadelphia line however, it melts iron and
steel, cuts bars of steel in two, punches holes in rails, drives air-compressors, scours the rails with sand, does
riveting and bolting, runs a drop-hammer, drives piling for bridges, and does
it all just as the cobbler patches the
shoe—while you wait. And if any of
the works is to be done at night, it
throws in the light as well. The railway system is that controlled by the
Philadelphia Rapid Transit Company.

### THE HYGIENE OF CHURCHES.

There is no doubt whatever that the hygienic condition of our churches leaves much to be desired. Fixed seats form dust-traps which it is practically impossible to cleanse; the weekly cleanings are often of a very perfunctory nature; ventilation is a science which bitherto no one seems to have mastered; and, in short, no germ ought to complain that a fair field is not afforded it. So far, however, remarkably title attention has been given to the subject in this country, and it has been left, curiously enough, to Dr. Chateau, a Portuguese physician resident in Bahia, to treat of it in an "ouvrage couronne" by the Eventuality. In the recommendations his Faculty. In the recommendations made by Dr. Cluteau there is, in the opinion of our contemporary, much sound sense. He would braish all fixed In the recommendations sound sense. He would banish all fixed seats, and replace them by light iron or wooden chairs that can be easily washed. Curtains and hangings are similarly mathenin, every door is to by well provided with mats, gas is to be superseded by the electric light, and thorough ventilation is to be ensured by opening all doors and windows after the services. It is, however, with regard to the cleaning of the building that our ecclesiantical hygienist is most insistent. Dry sweeping is on no account to be permitted. Every day sawdust damped with antiseptic solution is to be freely scattered on the floor and then sweep up, while the seats and easto be freely scattered on the floor and then swept up, while the seats and eas-ily reached parts of the building are to be cleaned with a subminate solution As our churches are no less responsible for the dissemination of entarrhs and other more serious mahadies than are the theatres, it would be a good thing if more were done to cleaned and disse-cent them. cut them.





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