

REVERSIBLE THEATRE FLOOR.

Paris Music Hall Converted into a Ballroom Every Night in Seven Minutes.

The movable stage which Steele and Mackay attempted to make a feature of theatrical construction many years ago is outdone by the reversible auditorium floor introduced in a new Apollon music hall on the Rue de Clichy, Paris. This device makes it possible to change the parquet into a dancing floor in seven minutes.

The floor is reversible. On one side it is fitted with 500 chairs of the usual folding variety. On the other side it is planked with hard wood, waxed and polished.

During the performance each night it is pitched at an angle of about 15 degrees like the floor of any other theatre. When the show is over and the dancing begins it is absolutely level.

All who patronize the house will see the transformation every night. When the curtain falls the seat holders will be hustled back into the orchestra circle and the foyers. Then the mechanism will work.

The floor, or rather the two floors, are built on each side of a framework of steel girders. This is hung on pivots, and when the machinery is set in motion it simply turns the other side up. The huge saws — it measures about 45 by 50 feet — stop at the appropriate angle when it is to be an auditorium and is secured there by strong supports.

When it reaches the level position to serve as a ballroom equally strong supports hold it there and provide for the safety of the dancers. When it stops in either position it is in immediate communication with the other parts of the house, as all the necessary steps are attached to it either to reach the orchestra circle when it is level or the stage when it is inclined at an angle. Stage and floor are continuous when used for dancing the electric footlights being attached to a disappearing framework, while a section of solid flooring takes their place.

The entire contrivance cost 70,000 francs, or \$140,000, of which \$9,000 was spent on the floor and its mechanism and the rest on the 27 foot deep brick-lined well through which the floor revolves.

WHY TAN SHOES WEAR WELL.

Breasing Used for Them Does Not Contain Acid—Blackening Does.

It seems pretty certain that for some reason or other tan leather keeps softer than black leather. One explanation of this may be that in the greater number of cases the blackening used for polishing black boots has strongly acid properties, whereas the paste used for polishing brown boots are never acid and consist of a swish made of oils and waxes.

In many of the formulas given for making blacking a very large proportion of oil of vitriol, or strong sulphuric acid, is directed to be used. The chief ingredients of good blacking according to the London paper, appear to be ivory black, treacle and oil of vitriol. Sometimes hydrochloric acid is used.

The object of the acid apparently is to dissolve out the mineral matter chiefly phosphate of lime of the ivory black and so to reduce it to a very fine spongy state. The result is that the blacking is very acid, not with sulphuric acid, certainly with phosphoric acid. As a matter of fact we have found sufficient free sulphuric acid in blacking which we have examined in chat paper when dried up on it.

Where Jewellers Get Gold.

Refineries, old jewelry and banks are the sources from which the jewellers draw their gold supply. From the refiner the gold comes to the factory in the form of buttons or granules. The refineries take the waste of the jewelry shops and the sweepings, and by burning off the material portions and proper treatment of the residue recover the gold that otherwise would have been lost. That this saving of even the infinitesimal particles of gold dust is worth the time and labor is attested by the number of refineries here, says the Attleboro Sun. The output from the refineries alone amounts to figures in a year that would enable an ordinary man to retire from active work with a fortune.

The Government, however, provides the greater part of the raw gold for the use of the manufacturer. For a long term of years there was a steady drain on the gold coin in circulation, caused by the using of the coin by jewellers as raw material.

The imperishable nature of gold, with its steady standard of value, is exemplified in the disposal of stolen jewelry by thieves to seneca, as the receivers of the proceeds of burglaries and robberies are styled. A few hours in a crucible after the stones have been wrenched from rings or brooch finds the golden circuit or elaborately designed breastpin melted into a shapeless unrecognizable mass that is easily disposed of through any one of many different ways.

In all French naval arsenals where submarines are stationed considerable precautions are taken for their safety as the result of the accident in the Algerian bay, which was nearly sunk through being covered by a cable on a mine vessel, which shifted the mine and sank the vessel.

COAL MINERS' WIDOWS.

850 of Them in the Anthracite Region Last Year.

What becomes of all the widows and orphans made as a result of mine accidents in the anthracite region? Last year in round numbers 350 widows were made widows and 900 children were made orphans through accidents which occurred in the anthracite mines alone, and this record has been equalled nearly every year for several years past since the production of anthracite has reached its present proportions.

The miners as a class are not thrifty and it has often been said that the majority of them can get along on \$25 a month or on \$100 a month, whichever they happen to draw, and are apparently just as well off with the one income as with the other. Here and there are miners who are exceptions to the rule, and own their homes and save money; but these are the most careful miners and the proportion of deaths among them is not so large as among those who are improvident in their living and careless in their work.

As a rule the widow of a man who has been killed in the mines is left without sufficient money to pay for his funeral, to say nothing about the maintenance of a household and the raising of several children. In spite of these conditions, though, there are very few widows who ever apply for support from the poor board.

Among the foreigners, particularly—and the deaths among them form a large majority of the total—more exceed the women 10 to 1, and it would be hard to find an instance of a man and wife keeping house who have not from one to twenty boarders with them. The woman who is left a widow, therefore, finds no difficulty in providing for herself and her family, for the boarders are only too glad to stay right with her.

The position of boarding boss is one greatly to be desired, and often before the husband is in his grave the widow has selected his successor in her affections.

As for the children, they get along as best they may until they are big enough to go to work in the fields or factories. The girls, as soon as they become about 14, are eligible for marriage and lead their suitors a merry chase until finally some fortunate fellow is accepted, the wedding with its full week of feasting and dancing brings his suit to a successful conclusion, and the envied man in his turn starts a boarding house.

With the English speaking woman whose husband is killed conditions are not so favorable, for the proportion of men and women is not so great. As a rule, however, she has fewer children to support than her foreign born sister, but the struggle is nevertheless often a hard one for her.

The majority of this class are self-respecting and desirous of giving their children the best that can be secured for them, with the result that the children are kept in school as long as it is possible, while the mother does household work or takes in washing.



THE DUKE OF CONNAUGHT, younger brother of King Edward, and Inspector General of the British forces, who is at present attracting considerable attention in British society, owing to his miserly habits.

Area of Yellowstone Park. The reservation known as the Yellowstone National Park, set apart for public uses by an act of Congress passed in 1872, covers a tract of about 65 miles in length from north to south, and about 55 miles in width from east to west, lying chiefly in Northwestern Wyoming and over lapping to a small extent the boundaries of Montana on the north and Idaho on the west. This gives an area of 3,312 square miles, a tract that is nearly the area of the States of Rhode Island and Delaware combined, and nearly half as large as the State of Massachusetts.

New York's Derelicts. A prominent clergyman at the head of an Eastside and Bowery mission is authority for the statement that the men who line up for free bread at the distributing places around 1 o'clock every morning—men who have no place to lay their heads for a single night's lodging—are nearly all from the interior of the United States.

KILL TO PLEASE SWEETHEART.

One Way for an Abyssinian Youth to Win a Young Woman's Favor.

"In Abyssinia the natives kill white men in order to please their sweethearts," declared Frank Bower, formerly Consul General to Addis Ababa.

"It is never dangerous for a white man to travel in Abyssinia provided he is accompanied by a native escort, because those who compose such an escort are always trustworthy; but a man takes his life in his hands if he goes abroad alone. Not that the natives are ferocious, but that he could not be sure that one of them had not made a pact with his sweetheart to kill a man of white skin in order to win her his bride. The natives who wins such a distinction wears a white feather in the back of his hair.

"Among all the 4,000,000 of population and in the entire area equal to New York Pennsylvania, Virginia and New England there are but two white women in Abyssinia. They are the wives of two consular officials. Strange to say, the national game is hockey but Caucasians cannot play it very much because of the climate. The natives work but little and eat raw meat. They kill an elk, peel off the skin as you would peel a banana, drain off the blood and proceed with the feast. Every Abyssinian is a good butcher.

"To the lover of nature Abyssinia is a paradise. In my journey through the land I saw thousands upon thousands of different species of birds that were beautiful in their plumage and sweet in their songs. Occasionally I heard the faraway roar of lions, those mighty beasts that promenade the forests and seldom molest human beings unless they are attacked. The Abyssinians never use any light at night, no matter where they are, and sit in the dark and converse. Therefore they have good eyes. And they were wonderfully white and even teeth made so by cleaning them with the spreaded end of a small stick.

RUSSIAN SOLDIERS' TEETH.

Third Molar Found to Be the Most Often Affected.

The German dental specialist, Dr. Franzius, made an examination recently of the teeth of 650 soldiers in Russia. It appeared that 258, or nearly 40 per cent had dental caries. He finds that of all the teeth the third molar is most often affected, such cases making up one half of all the cases.

The teeth were affected in a certain successive order. First the lower third molar is affected, then the upper, then the lower fourth molar, and so on. The incisors and canine teeth of the lower jaw stand last in the list. The durability of the upper teeth stands to that of the lower as three to two. The teeth in persons of fair complexion are less durable than those of large complexion and hair—about 40 per cent.

Stature has a manifest influence on the durability of the teeth, which decreases with increase of height, and vice versa. Dr. Franzius seeks the explanation of this curious fact in a less perfect outer circulation in tall men than in short ones. The right teeth show a greater vitality than the left. The conditions of the soldiers life do not show any harmful influence on the state of the teeth.

The Man-Fish.

There used to be traditions among the sailors of mermaids at sea, half women and half fish, and there are fishes which may have given rise to the belief, from their resemblance to human beings. One of these is called the man-fish.

This animal inhabits the mouths of the Amazon, Orinoco, and other South American rivers. Its name (manatee) has reference to the peculiar form of its swimming paws; these are composed of soft parts, and a membrane which infolds the bands of the hands and fingers; but in the manatee four flat nails are seen attached to the edge of the paw.

The tail also is peculiar being about one fourth the length of the body and shape. The effect has been deepened oval shaped not unlike that of the otter. The head is round, attached to the body without a neck, the muzzle, in which the nostrils are placed, is large and fleshy; the upper lip, cleft and bristled at the end; the lower lip much shorter and the mouth small. When seen at a distance, with the anterior part of the body out of the water, they are sometimes taken for some creature approaching to human shape. The effect has been deepened by the thick set hairs of the muscles, giving somewhat the appearance of human hair, or a beard. Thus, the Spanish and the Portuguese give the manatee a name which signifies woman fish; and the Dutch call it the dudong beardmanatee, or little bearded man.

Days of Razorless Shaving.

Razorless shaving was well known to the ancients. Dionysius, the tyrant of Syracuse, who had very good reason for not trusting a barber near his throat, invented a method of burning off his beard with glowing walnut shells. It is supposed that Dionysius did not succeed in effecting a very close shave. The effeminate young men of decadent Rome objecting to the razor, secured the desired smoothness by resorting to all manner of depilatory plasters and ointments. There is much amusing reference to these in the epigrams of Martial, who made merciless fun of these timid chandeliers.

EFFECT OF IRON ON DIGESTION.

Organic Salts Seriously Check Action of Stomach's Juices.

In an inaugural dissertation published at Berlin Dr. A. Dueterhoff records the results of some experiments bearing on this subject. One gramme of fibrin was added to 20 cubic centimetres of artificial gastric juice, and during digestion equivalent quantities of various proportions of iron were also added. At the end of the process the undigested fibrin was dried and weighed, and the quantity of soluble synotin in the solution was also established.

The time of digestion was in one case three hours and ten minutes; in another it was seven hours and ten minutes; in another it was seven hours and a half. In the first series, 0.14 grammes of metallic iron was in each case added, in the form of pyrophosphate, perchloride and protoacetate respectively. In the second series various other preparations were used, the amount of metallic iron being in each case equivalent to .0077 grammes.

Other experiments were made with the white of an egg, the amount of albumen precipitated by boiling after digestion being estimated. The outcome of these experiments is that organic salts of iron seriously check the peptic digestion. Probably the hydrochloric acid of the gastric juice displaces the organic acids from the iron salts and so is used up, while the free organic acids in the digestive fluids are far less powerful digestive agents than the hydrochloric acid.

But this cannot be the only cause at work, for perchloride and phosphate also tend to hinder digestion. Even reduced iron has a similar effect for it partially dissolves in the juices forming chlorides. Its solubility, like that of the phosphate, is, however, not very great. Ferrous salts seem to interfere less with digestion than ferric salts.

CALIFORNIA OLIVE OIL.

Shipped in Immense Tanks, Like So Much Petroleum.

The sale of olive oil constitutes one of the largest items of revenue to California. Although olives have been grown there for more than half a century, the quantity of fruit sold outside of the state before 1900 was insignificant.

Forming themselves into an association, a number of the large growers have taken steps since then to compete with Italy and France in selling their product, and have succeeded to such an extent that, according to Moody's Magazine, they manufacture a large proportion of the 250,000 gallons of olive oil at present produced in this country.

One ton of olives usually yields 30 to 35 gallons of oil. For the Eastern trade the California association has established an extensive bottling plant in New England to which the oil is actually shipped by the railroad in tanks, like so much petroleum. One of the large olive orchards alone contains no less than 120,000 trees, which will give an idea of the magnitude of olive growing.

Slang of Other Days.

Slang has always been a fruitful source for the expansion of language, and instances may be multiplied of words now respectable which were once tabooed as vulgarisms. But, on the other hand, there have been many slang phrases in use for centuries which have never become acceptable to the purists. As long ago as 1760 the celebrated leiter writer Horace Walpole used to speak of "sitting guzzling" and getting "drunk as an owl."

Then again, in the diary of one of the most prominent woman writers of the eighteenth century, Frances Burney, are found good slang phrases of the American college girl of today, as for instance: "I sneaked out." "Did you ever know such a toad?" and "I had a vile cold."

The Perfect Face

In a perfect face every feature should bear a certain proportion to every other feature. The width of the face should be equal to five eyes. The distance between the eyes should be exactly equal to one eye.

Another important relation is that between the eyes and the mouth. The width of the eyes should be equal to two thirds that of the mouth. The nose should be equal in length to the height of the forehead, of a regular shape and precisely defined outline. Health.

Lost His "Mr."

For a man of mature years to have the distinction of Mr. removed from his name would, no doubt be a severe punishment. Yet this was what the Puritans inflicted on Josias Piatestow, and all because he stole four baskets of corn from the Indians. And then after poor Josias was Mister no longer, the hard hearted founders of Massachusetts were not satisfied, but fined him five pounds sterling and made him return eight baskets of corn to the offended red men in place of the four he had taken.

In the ruins of Mitla, Mexico, is the Death Column. The Indians say they can tell the number of years a person will live by the number of spans between his finger tips when he embraces the column.

Hardly any girl puts up a resistance that causes a man to miss her mouth and land a kiss on the back of her neck.

POWER FROM ELECTRIC EELS.

Result of Recent Experiments by a Venezuelan Scientist.

Prof. de Estandio, head of the Government college at Caracas, Venezuela, had a hundred average sized electric eels captured and, copper wire encircled around their necks just below the ears and then connected them with a motor, the eels remaining in the river near the shore.

Their violent flopping, and contortions proved a most uncertain sort of electric current, so he procured another hundred and put them into a zinc bath which he had in his house and connected it with the motor and found that they produced about twenty horse power. With this he ran a mill and lighted up his house and grounds. The power from each eel, sufficed to produce a forty five candle incandescent light.

Prof. de Esperando also was found that a motor car can be run for twenty four hours with 100 eels in a tank 3 feet long and 1 1/2 feet square and weighing complete less than 200 pounds.

It is claimed that the largest ocean steamers afloat can be run with 200,000 eels, producing 40,000 horse power, and contained in a tank not larger than 10x10x15. This plant of course will have to be duplicated so that when the energy in one is exhausted the deck so that the light from the sun can infuse new energy into it while the power is furnished by the relay plant.

SOPHISTICATED BRANDY.

French Makers Are Adept at Manufacturing False Varieties.

French brandy today is, in the main, made from alcohol of grain, potatoes or beet. The proprietors of the vineyards, all of whom are distillers, have become so clever in the manipulation of alcohol and the accompanying drugs that they deliberately manufacture a brandy of any required year or quality.

The mention of the years 1849 or 1876, for instance, in an invoice or on a label, means simply that the article is presumed to have the taste or color of the brandies of those years. The increasing importation of German potatoes and beet alcohols into the Charante ports is an additional proof that the less brandy that is consumed the better for the health and intellect of the consumer.

It is, moreover, becoming a custom to sell the brandy in 12 bottle cases, marked with one, two or three stars, according to the presumed quality, thus avoiding any compromising mention of year or place of production. Some of the manufacturers import the small raisens from the East, and make what they call brandy from the juice, there being one such establishment at least, in operation at Cologne.

Success With Camphor Trees.

As showing how favorable to camphor growth the soil and climate of Florida are a newspaper of that State tells of a tree planted by Captain J. P. Renfro of Richland. It is 17 years old, 40 feet high, its branches cover 40 feet, and its diameter 12 inches above the ground is four feet. The hills around Richland seem to be specially adapted to the growth and development of the camphor tree in its highest state. The tree becomes useful for the production of the gum in a few years after planting.

The Presidential Salute.

The American presidential salute is twenty one guns, as is the English royal salute; but the reason why just twenty one guns are fired is obscure. Antiquarians have put forth different theories as to this. One states that seven was the original salute; but that in England this was given three times, once for Scotland, once for Ireland, and once for England. Some declare that the American salute is twenty one guns because the sum of the numbers 1, 7, 7, 6 (the year of the Declaration of Independence) is twenty one.

Japan's Roman Magazine.

There is now published in Japan a magazine with the Japanese transliterated into Roman characters. It is meeting with hearty support and it is said to be only a question of time when the old alphabet will have entirely disappeared. Not only will Japanese children learn to read in half the time now required, but foreigners will be encouraged to take up systematically the study of the Japanese language.

The lawyer the doctor, the professional man of almost any class, uses to work harder and longer today than did his successor of a generation ago for the same pecuniary reward, while the deplorable spread of the mania for keeping up appearances in the snobbish sense of outwying one's neighbors, is so general that even those who secretly despise the folly of the system publicly succumb to it.

It is now possible for a balloon to throw out more ballast than it carried up from the surface of the earth. In a balloon ascent made from Berlin by Capt. von Krogh, the pilot of the Parseval balloon there was carried a quantity of chemicals which save the property of absorbing moisture and thus increasing their weight in a damp atmosphere. The experiment was successful.

THE DESIRED LITERARY MAN.

Noise as Related to Literature—Delusions of the Quiet of Home.

"Some writers," said the retired literary man, "can do their best work in a sawmill, some can produce their best results in a boiler factory; and, again, I have known men whose fancy rose to its finest and fullest fruition when drawn upon in a rushing, roaring railroad train.

"But while some men thus could do their best work in the midst of what would commonly be considered as the noisiest of surroundings, I have never yet known any men who could do good work in the so-called quiet of home; and the reason for this is very simple.

"You see, in the noisy places such as I have described the noises are uniform and rhythmic and to some men they may even be tuneful and soothing. There are many men, indeed, including some not writers, to whom the droning hum of the buzz saw is music, as to them the scent of the freshly sawed lumber might be a fragrant and stimulating perfume.

"To some men the continuous banging in a boiler factory—may be the very reverse of disturbing—it may be, rather, stirring and invigorating; and there are men who love the constant roar of the railroad train. But bear in mind that, as I have said, all these noises are uniform and rhythmic, while the sounds of home are likely to be intermittent and unsteady and that so even sounds comparatively light may here, in an atmosphere normally quiet, seem positively explosive.

"And it is those sounds of an explosive character that are likely to prove most disturbing; though there may be other home sounds not so loud, that will, nevertheless, almost as effectually disrupt a train of thought.

"Why, I have known a literary man working in his study at home to be quite thrown out of balance by the sudden dropping of a flatiron on the floor of the kitchen below; to be so completely unbalanced, in fact, that he couldn't do any more work for half a day. And the sudden or continued wailing of an infant in the house might exercise an equally disquieting effect upon his nerves, and so upon his flow of thought, as might, indeed, the boisterous play of older children, with the oversetting of chairs and bureaus and things of that sort, which last, however, I suppose might more properly be classed with the explosive sounds, though their explosive effect is likely to be merged somewhat with the preceding uproar.

OBJECTS TO AERONAUTS.

Holland Passes Laws Against Visitors From the Clouds.

The increasing frequency with which balloons have come to earth of late in various parts of Holland has led to a bill being laid before the Netherlands Second Chamber with a view to putting a stop to these unwelcome visits. The bill, says the London Globe, is aimed mainly at balloons belonging to the German Aeronautical Societies in the region of the Lower Rhine as in most cases it has been found that when the balloons have landed the occupants of the car have been officers of the German army, and their object in making these balloon trips into Dutch territory very naturally is thought to be connected with spying out the country. Henceforth, every aeronaut landing in the Netherlands will have to pay a fine of 250 or go to prison for three months.

Women as Lawmakers.

Women not only have had the vote, but have actually sat in England's lawmaking bodies. Abesses, in virtue of their position as such, were, in bygone days, entitled to a seat and voice in the national council. They turned up in big force at the council of 694, when the question of nunneries was in debate, and several of them subscribed to the decrees made on that occasion. Again they sat in a national party held in 855. And once again in the great council of Henry III, and Edward I, when the abbesses of Shaftsbury, Barking, Winchester and Wilton were in attendance, each with her retinue of lay folk.

Beyond the Last.

It has often struck me as a curious thing that in all the countries I have inhabited shoemakers should generally have been Socialists, says a writer in the Nineteenth Century.

What, I wondered produced this odd phenomenon? It was hardly to be supposed that souls with socialistic tendencies incarnate by preference in shoemakers as they could further their views just as well in other walks of life. It therefore became clear to me that there was something in the fact of shoemaking which favors this form of belief. At one time I thought it was on the right track and it was the handling and the smell of leather that did it.

The terms "colony" and "colonial" have no place in the lexicon of American political administration. Yet the fact that we have a little collection of insular possessions, noncontiguous territories, a leasehold in perpetuity in Panama, a right of intervention in Cuba and an object of disinterested benevolence in Santo Domingo, to say nothing of what the fates may yet pitch into our windows or leave on our doorsteps, makes those terms convenient and they are appearing more and more frequently.