FOR THE HOME

Recipes for the Kitchen. Hygiene and Other Notes for the Housekeeper.

CUSTARDS.

The direction for baking all cup custards is the same way. Pour the mixture into cups, set them into a pan of hot water and bake in a rather moderate oven about twenty minutes, or until the custard is set in the centre. Custards are best served cold. Sponge cake or angel's food is a delicious accompaniment to custard. Each of the following recipes will make enough to fill four custard cups. The chief care in making custards is to mix the ingredients thoroughly.

Maple Custard.—Beat three eggs until a full spoonful can be taken up. Add a pinch of salt, one-third cupful of maple syrup, and when these are well mixed, add two cupfuls of milk. Strain and bake as directed.

Nut Custard.—Rub four level tablespoonfuls of nut butter smooth with one cupful of water. Beat two eggs light, with eight level tablespoonfuls of sugar and add to the butter with a pinch of salt. Mix well with another cup of warm water and cook in a double boiler till creamy. Then bake as directed. To make this of different flavors, use different kinds of nut butter.

Caramel Custard.—Let one-half cupful of brown sugar melt and brown in a saucepan over a moderate fire, stirring constantly to prevent burning. When well browned pour over it one-quarter (coffee) cupful of boiling water, and let it simmer slowly. Beat two eggs, add a pinch of salt and one pint of milk. When the caramel is melted add to it the milk and stir well. Bake as directed.

Chocolate Custard.—Heat to the boiling point in a double boiler, one cupful of milk and one cupful of water, or preferable, two cupfuls of milk. Put in a granite sauce pan or cup over a moderate fire one-half square of Baker's chocolate, shaved up, four tablespoonfuls of granulated sugar and one-half tablespoonful of water. Stir this constantly until it is smooth and glossy. Add the hot milk, slowly, beating thoroughly. When this is tepid add it to two eggs beaten thoroughly. Add a pinch of salt and one-half teaspoonful of vanilla. Beat all together thoroughly and bake as directed.

Cocoa Custard.—Heat one cupful of milk and one cupful of water, or preferable, two cupfuls of milk, to the boiling point in a double boiler. Mix together thoroughly four even teaspoonfuls of Baker's cocoa and four tablespoonfuls of granulated sugar. To this add the hot milk slowly. When this is tepid add it slowly to two eggs beaten light. Add a pinch of salt and one-half teaspoonful of vanilla. Beat thoroughly and bake as directed.

Coffee Custard.—Beat till light two eggs, a pinch of salt and two tablespoonfuls of sugar. Add slowly two-thirds of a cupful of milk and 1½ cupfuls of clear, cold coffee. Beat up thoroughly and bake as directed.

Pumpkin Custard.—This is merely the custard part of pumpkin pie for which it is an excellent substitute. Mix well one-half cupful of sugar, one even teaspoonful of ginger and two even teaspoonfuls of cinnamon. With these, beat up one egg till light. Add two-thirds cupful strained pumpkin, then 1½ cupfuls milk. Beat till thoroughly mixed and bake as directed.

SIMPLIFIED LIVING.

A simpler style of living would relieve the burdens of many housekeepers. A great deal of time is wasted on the trimming and laundering of clothing and household linen draperies. A ruffled garment requires at least double the time to iron that would be required for a plain garment. Make underclothing, children's clothing, window draperies, etc., plain and use flat trimmings. But you say ruffles are so dainty. So they are, but with all the extra work they involve are they worth while?

In some houses rooms are filled with things that have no reason for being there. The moving and dusting of these ornaments (?) mean the expenditure of a great deal of time and strength in the course of a month. Do they add enough to the pleasure and culture of the family to make it worth while? ...

We think some good photographs or other pictures on the walls; a few good plaster casts; bookshelves filled with books; and comfortable, plain furniture would be infinitely more artistic and educational, while the care of such a room would not be burdensome. Plain finishes in the furniture and wood work of our homes would mean less labor in their care. In cooking utensils, good material made in a simple, smooth form would mean a saving of time. Fewer dishes at a meal, but each dish simply and perfectly cooked, would reduce the work of the kitchen one-half.

Now these suggestions for simplified living do not mean careless housekeeping nor the elimination of any one thing that is essential to the happiness or the growth of the family. On the contrary, they should lead to a more honest and a larger life for all.

DOMESTIC RECEIPTS.

Vanilla Sauce for Puddings.—Beat one egg and stir half a pint of milk into it. Add sugar to taste and five or six drops of vanilla. Put into a saucepan over the fire and stir one way till it begins to thicken. Do not let it boil.

Fruit Sauce for Puddings.—Boil any kind of fruit with a little water until it is quite soft, then rub through a fine sieve with the back of a wooden spoon. Sweeten to taste, heat it and pour over the pudding. Nice for boiled or steamed puddings.

Hard Sauce for Puddings.—Cream half a cup of butter until light and white; then stir in gradually the same weight of pulverized sugar. Make up in the form of a pyramid and grate nutmeg over it. For rice or cabinet puddings.

Cream Sauce for Puddings.—Two cups rich milk, half cream is best; four tablespoonfuls of sugar, whites of two eggs beaten stiff, one even tablespoonful of cornstarch wet up with cold water, and any flavoring you prefer. Heat the milk to the scalding point, add the sugar, then the cornstarch, and when it thickens beat in the whites of the eggs. Take from the fire and set in a dish of boiling water to keep hot, not to cook more.

PROPER WAY TO AIR BEDS.

The directions for airing beds given in a domestic training school are worth noting. Place two chairs with seats together near an open window. Fold the counterpane neatly the long way, and lay over the tops of the chairs, allowing the middle to sag down to the seats. Fold the blankets next and place over the counterpane, allowing a space between each for the circulation of air. Proceed in the same way with the rest of the bed clothing. Beat up the pillows and place them where they will get the air.

NEW WAY TO DO TIME.

Dr. Lillinksjold, of Butte, Montana, is credited with having adapted hypnotism to a novel purpose. The doctor, having been placed under arrest, tried, fined, and sentenced to jail for twenty days for some small infraction of the law, deliberately hypnotized himself, saying he would awaken from his trance at the expiration of twenty days. All efforts to awaken him were unsuccessful till the end of that period. As a means of "doing" time, or of whiling away long intervals, Dr. Lillinksfold's plan is probably unique.

A UNIQUE PET.

The wife of the Governor of North Borneo has a pet that few people will envy her. The Governor's house is near a jungle, and out of this there strayed one morning a baby rhinoceros. Captured as a curiosity he soon became tame, and now refuses to return to the wilds. Sixteen quarts of milk a day is what this pet requires, and on it he thrives and grows fat. He does not look much like the full-grown rhinoceros, and might be mistaken for a curious sort of hog, were it not for his single horn. He is devoted to his mistress and follows her about like her dog.

MAGNETS AS WEIGHT-LIFTERS

Now being Used in a Number of Steel Works.

The availability of magnets as lifting devices has been known, experimentally and practically, for many years. Some of the oldest treatises on electricity and magnetism give the lifting power of magnets as that weight which the armature of the magnet will sustain without falling off; but it is a far cry from lifting a tack by means of magnetism to the lifting of massive iron and steel plates weighing four, six, and twelve tons by this same force, which is now done every workday in a number of large steel works.

Electro-magnetism, of course, is utilized, the form of the magnet being usually rectangular for this work and presenting a flat surface to the plates lifted. The magnets are suspended by chains from cranes, and pick up the plates by simple contact and without the loss of time consequent to the adjustment of chain and hooks in the older method. It is also found that the metal plates can be lifted by magnets while still so hot that it would be impossible for the men to handle them. The ratio of weight of these magnets to the weight lifted varies with the machine; in some cases this ratio is 30. Thus, a magnet weighing 300 pounds will lift 4.5 tons. The magnet is operated by current from a dynamo, controlled by switches and rheostats, and one of the capacity mentioned requires about four amperes at 250 volts, or 1.34 horsepower. These magnets also have the advantage for this class of work that a number of them can be applied jointly to lift a heavier weight than one machine could lift singly.

Old Greybeard—"It's a pity to keep such a pretty bird in a cage." Mrs. De Style—"Isn't it a shame? How perfectly exquisitely lovely it would look in a hat!"

BUILT A FLYING MACHINE

DR. ALEXANDER GRAHAM BELL INVENTS A KITE.

Formed of a Multiplicity of Silken Wings, Making an Artificial Bird.

Dr. Alexander Graham Bell, inventor of the telephone, has built a flying machine that will really fly. It is a structure composed of what might be termed a multiplicity of silken wings, upholding a sort of boat. But perhaps the strangest thing about it is that the boat will fly by itself, so great is its buoyancy, when the supporting part of the apparatus has been taken away.

The machine is, in effect, an artificial bird, constructed on the kite principle, but in accordance with an entirely new idea. It is a multiple kite, composed of a great number of triangular boxes of silk, held in shape by sticks. If it were not so hard a word, it would be better to call the boxes "tetrahedrons," inasmuch as each of them has four triangular sides. Put four triangles together to make a box, and you will see the idea. Then fasten a lot of such skeleton boxes together, corner to corner, and you will get a notion of Dr. Bell's arrangement.

One side of each skeleton box is open to the air; the other sides are of silk, and in shape and position suggest the triangular wings of a bird in the act of flying. Thus the whole machine, being made up of such boxes, is like a bird—or, more accurately speaking, like a flock of birds whose flight is directed by a single impulse. The so-called "supporting part" of the apparatus is a great "aerplane" composed of these boxes, and the boat suspended beneath is of similar construction, so that, as already stated,

IT WILL FLOAT BY ITSELF.

"I have had the feeling," says Dr. Bell, in describing his invention, "that a properly-constructed flying machine should be capable of being flown as a kite; and, conversely, that a properly-constructed kite should be capable of use as a flying machine, when driven by its own propellers. Given a kite so shaped as to be suitable for the body of a flying machine, and so efficient that it will fly well in a good breeze when loaded with a weight equivalent to that of a man and engine—then, it seems to me that this same kite, provided with an actual engine and man in place of the load, and driven by its own propellers, should be sustained in calm air as a flying machine. So far as the pressure of the air is concerned, it is surely immaterial whether the air moves against the kite or the kite against the air."

To illustrate this point, Dr. Bell flew his flying machine in a dead calm by attaching the cord (a strong manila rope) to a galloping horse. The horse furnished to the apparatus a power of propulsion equivalent to that which an engine might have given, and it rose and soared beautifully. It was an application of the same principle as that employed by the small boy, who, when the breeze is too light to raise his kite, runs with it along the ground.

On one occasion an attempt, which came near to having a disastrous ending, was made to fly the machine in a good sailing breeze, when a squall came up and struck it, lifting into the air the two men who held it. Of course, they let go instantly, and the gigantic "bird of silk and sticks, carrying the boat beneath it as an eagle bears its prey in its talons, rose steadily in the air until the rope snapped under the strain.

TREMENDOUS OSCILLATIONS.

of a pitching character ensued, but the kite was at such an elevation when the accident happened that the oscillations had time to die down before it reached the ground, when it landed safely upon an even keel in an adjoining field."

Dr. Bell states that the applicability of kite experiments to the flying-machine problem has been for a long time past the guiding thought in his researches. He says:

"I have not cared to ascertain how high a kite might be flown. The point I have had specially in mind is that the equilibrium of the structure in the air should be perfect; that the kite should fly steadily, and not move from side to side or dive suddenly when struck by a squall; and that, when released, it should drop slowly and gently to the ground. I believe that in the form of structure now attained the properties of strength, lightness and steady flight have been united in a remarkable degree."

Dr. Bell's experiments were made during recent summers on his estate in Nova Scotia, and the kites employed assumed hundreds of different forms, though all of the recent ones have been composed of the "tetrahedral" skeleton described. Such a box being recognized as the structural unit, as many as might be desired could be put together in all sorts of shapes. Up to date, however, the form that has proved most satisfactory is the aeroplane upholding a boat.

"In Asia," says Dr. Bell, "kite-flying has been for centuries an amusement of adults, and the Chinese, Japanese and Malays have developed tailless kites very much superior to any form of kite shown to us until quite recently. It is only within the last few years that improvements in kite structure have been seriously considered, and recent developments of the art have been largely due to the efforts of one man—Mr. Laurence Hargrave of Australia. Hargrave realized that the structure best adapted for a kite would also be suitable as a basis for the construction of a flying machine."

THE SIMPLEST FORM

of Hargrave kite, which has already become familiar to most American boys, consists of two rectangular boxes of muslin, with a wide space between, held rigid by sticks. Dr. Bell's first discovery was that a marked improvement could be effected by making the boxes triangular. Inside bracing was thereby rendered unnecessary, and the kite was stronger and lighter, while offering less head resistance to the wind. The next step was to change the triangular "cell" into a tetrahedron—a box formed of four triangles. A pyramid with a triangle for its base will represent the shape.

The skeleton tetrahedron made of sticks is braced in three directions like a solid and is therefore very strong. "It is astonishing," says Dr. Bell, "how substantial such a framework appears, even when composed of very light and fragile material."

Hence it is that the new contrivance devised by the inventor of the telephone surpasses all previous efforts of human ingenuity in this line by reason of its extraordinary lightness in proportion to its size and strength. It is the nearest approach thus far made to aerial locomotion on the soaring principle (the advocates of which discard balloons as hopeless for practical purposes), and the public will await with interest the result of Dr. Bell's first attempt to run his apparatus with an engine and man on board. He has at last secured, as he believes, a perfect kite, and the next step is to convert it to practical use as a flying machine.

GIRL TOIL IN MINES.

Belgium Unable to Find Remedy for Its Slavery.

Notwithstanding all the criticisms and ameliorative suggestions that prevail on social reform among the laboring classes, and the dreams of the modern sociologists of both hemispheres, the problem of how Belgium can supply decent employment to its southern girls remains still to be solved. The kingdom is only one-fourth the size of Pennsylvania, and yet within its boundaries more than 6,000,000 persons are battling for their daily bread.

Undoubtedly the American girls pity their Belgian sisters and condemn the act of employing the weaker sex upon dangerous and strenuous labor in subterranean galleries, just as the Belgian servant girls and farmers' daughters have pitied them for many years; nevertheless, the girls at work in the mines make light of their sympathizers and seem more than satisfied with their miserable lot. None of them would voluntarily exchange it for the position of a servant girl. Complaints seldom arise from their lips, no matter what grave danger the day's share of work may involve or to what wretched condition of servitude they may be doomed.

The mines wherein so many young girls are spending the best days of their youth are indisputably the deepest in the whole world, some reaching a depth of 4,200 feet, and their interior is insufficiently ventilated; the air is impure, the heat intense and highly explosive from the numberless crevices, capable of transforming hundreds of toiling bodies into lifeless masses in an unexpected moment. Numerous instances of such disasters are on record.

The clothes worn by the unfortunate girls during working time are made of blue linen of the lightest weight, and consist of large pantaloons, the end of these bifurcate garments being tied around the legs just above the shoes; also a jacket wherein the body can freely exercise its muscular strength. The hair is skilfully enveloped in a handkerchief, thus protecting the head from coal dust as well as if it had never approached a coal mine. The whole outfit costs about 70 cents, and is changed twice a week. In full dress the girl of the Belgian mine resembles a bicyclist of her sex arrayed in bloomers.

For twelve hours' work a day in the mines the Belgian girl earns 50 cents.

LEARNED BY SCIENCE.

Research in the chemical laboratory of the University of Pennsylvania shows clearly that whisky and other alcoholics increase the bacteria destroying power of the blood.

The Duke of Abruzzi has prepared suits, for use in the next polar excursion, which are heated by electricity through a network of asbestos covered copper wire in their linings.

Suppose one should hold a crystal of radium in his hand with his face turned to the east. Suppose that one of the electrons were a leaden bullet circling the earth to its starting point. He would be shot in the back from the westward five times before he could fall to the ground, so rapid is the movement of the electrons.

THE WORLD'S BIGGEST MAN

HE IS A RUSSIAN AND IS 105 INCHES HIGH.

Fedor Machnoff Is a Mere Boy—In Two Years Mochty Grew Two Feet.

I have just shaken hands with the biggest man in the world. I wear No. 5, and the gloves built for him are 13 inches long, measured from the wrist to the point of the middle finger. His name is Fedor Machnoff, and the Kaiser's giant bodyguards that he took to Rome with him for show look like 30 cents in comparison, writes a Paris correspondent.

We met on the Moscow-Berlin-Paris express, and Fedor, who is a mere boy, asked a thousand and one questions about other enormous fellows I know—"Fugleman" Balling, the Bavarian; the Belgian "Colossus" Canon-Berg; Baron von Pluskow, who won the love of an imperial blonde; Anton Mochty, who in two years gained two feet in height and 111 pounds in weight, and all the rest of the big tribe. Only when I satisfied his own curiosity would he tell about himself.

Fedor is not pretty, but his face, though roughly hewn, is sympathetic rather than otherwise. He was born of Russian parents in Wittebsk 22 years ago, and is still growing. His exact height to-day is 105¾ inches, equal to 8 feet 9¾ inches.

Enormous feet. One sometimes refers to people with very large feet jocosely as number "12's." Imagine, if you can, an 18-inch long boot for Fedor's dress parade; when he wants to be comfortable he takes No. 20. At the same time he has No. 18, and small wonder, for up to a mo and small number, for up to a month ago, when a traveling montebank discovered him, he never wore boots — they were too expensive.

Fedor showed me photographs of his parents, taken a week ago. Most ordinary people of the Russian peasant type, the father 5 feet 6, the mother 5 feet 3 high, according to official measurements. The boy's three brothers and seven sisters are likewise of average size only.

WAKE UP TO BE A GIANT.

"Are there any verified data respecting the boy's growth?" I asked the manager.

The village gendarme, who looks after promising recruits, dividing them into classes under the heads of horse, foot and artillery, had furnished the desired information.

According to this authority, Fedore woke up one day to find himself a giant. It was on his seventh birthday. After lying as one dead for 36 hours in deep sleep, he astonished his parents and neighbors when he arose from the stove and walked out into the open. The boy just enough for school was taller than his father by two inches.

When 10 years old Fedor was taller than the tallest man in the Czar's bodyguard; two years later he reached the two metres mark (6 feet 7), and at 14 he gave the lie to the encyclopaedias, maintaining that no man ever grew taller than 6 feet 10. Fedor then measured 6 feet 11 in his bare feet.

"Did you suffer much from growing pains?" asked your correspondent.

"No," answered Fedor, "for when I felt them coming I tried to go to sleep, and usually succeeded, dozing from 24 to 30 hours at a time without food or drink. When afterward I crawled down from the stove I was always 2 or 3 inches higher than before."

Fedor occupied a special carriage in the train. The receptacle for hand baggage, usually placed over the passenger's head, had to be removed, and iron pillars propped up the sofa assigned to him. Occupying two seats himself and monopolizing those opposite by his legs and knees, he had to buy four tickets.

Fedor defies medical and scientific investigation in more respects than stated. His head is not abnormally small, neither are his shoulders narrow, or his hips very high. Again the bones seem to be of the average toughness and he is quite muscular. The fact that his growth began so early in life is also in strict opposition to what the text-books claim, namely, that an intending giant begins to stretch after his tenth year only.

BELATED CONGRATULATION.

Returned Tourist—"And so, during my long stay abroad, Miss Pinkie got married—six months ago, too. I must call to offer my congratulations. What is her name now?"

Hostess—"Mrs. Blinks. She lives next door."

Enter Servant—"Please, mum, Mrs. Blinks wants to know the address of some good locksmith."

Hostess—"With pleasure. What is the matter?"

Servant—"When Mr. Blinks left the house this morning, he slammed the door so hard that it broke the latch."

EVERYBODY'S DOCTOR.

Automatic machines, to be called "Everybody's Doctor," are to be placed in the boulevards and principal thoroughfares of Brussels. By putting a penny in the slot one will be able to obtain a remedy and also the prescription for such ailments as sick headache, cold, lumbago, and toothache.