

For the Boys and Girls

Birds That Build Bungalows.

South Africa has a bird that goes to housekeeping in a bungalow with three rooms, lives in it by day, sleeps in it at night, repairs it when it leaks or breaks and uses it as a home for several years. It is made of grass, mud and sticks and takes a carload of material to complete it. It is a big, dome-shaped house with a flat roof, and looks as if made with hands and tools, instead of the feet, breast and beak of a bird with a body the size of our common crow. The inside is unusually interesting, for it has a saucer-shaped floor made of twigs and cement, as well as walls which divide it into three parts. These rooms are connected by small doors, ways and are used for a nursery, pantry and a front room for the male bird to watch and fight any enemy that tries to get through the small opening leading into the bungalow. Here he is usually found with his hammer-like head stuck out of the front door.

The nursery of this queer bungalow is provided with a bed of soft grass. It is the largest of the three rooms and can only be reached by passing through both the front room and pantry where a supply of food is kept. Whether this food is served only to the nestlings or shared by the whole family is not known. The hammer-head, however, rarely leaves the house by day, and the provisions brought home by night must be used for any meal eaten during the day.

The outside of the hammerhead bungalow is often decorated with various things which please the strange owners. On or about them are pieces of glass, shells, bones and bits of china which they have carried home for the purpose. It is a good strong house and said to bear the weight of a man without damage to any part of it. It is built by the male bird and

Communicable Diseases

It Is the Duty of Every Person to Learn How Diseases Are Spread and Co-operate With All Official Efforts to Prevent Them Spreading.

Let no one thing for a moment that the responsibility for the control of communicable disease is a matter in which he has no personal interest. While he may evade the duty, he can never be sure that he will escape the penalty of his neglect. Such diseases take both rich and poor. They thrive best among the poor, and by reason of our common humanity, we are all, whether rich or poor, more nearly related from the health standpoint than we may think. The members of the great human family are subject to the same laws of life and subject also to the same diseases. The man who has never been connected with his poorer neighbor by deeds of charity and love, may be brought with him to an early grave through an attack of the same disease.

"No man liveth to himself and no man dieth to himself" finds here a fitting application, for the efficient control of a communicable disease depends to a large extent on the co-operation of all citizens with their respective Departments of Health. There is not only a community responsibility in this but also an individual responsibility that must be fully appreciated and acted upon in order to secure such co-operation.

Do not entertain the false idea that children must have such diseases. The only reason why any diseases are called "children's diseases" is because the germs that cause them are waiting for a chance, to invade the human race and early childhood affords the best opportunity. Many diseases, therefore, are always most prevalent

in the school months and during such months the children are in closer contact with each other.

Let us fix in our minds a few facts concerning the ways and means by which communicable diseases are contracted and the process by which the germs are transmitted from one to another. Diseases are not contracted from offensive odors, decomposed garbage, untidy backyards, or from sewer gas, and rarely, if ever, from the air. These are not breeding grounds for disease germs, which for the most part live but a short time outside of the human body. Communicable diseases, in fact, are contracted chiefly through contact, direct or indirect of the person with another. The germs themselves have no power of moving from place to place. The persons who carry them also transmit them. Of the ways and means by which disease germs are transmitted, probably the human hand is one of the greatest offenders on account of its frequent contact with articles in common use by others. Unconsciously the hand touches the mouth many times in the course of the day and in the case of those engaged in the preparation of food, or handling articles for containing food, it is essential, therefore, that the hand should be kept scrupulously clean.

It is the duty of every citizen to understand something about the manner in which communicable diseases are spread and to take all precautions that may be necessary to prevent himself from being a transmitter of disease. There is self-protection in this matter as well as regard for one's fellow-men.

carefully. Near a tumble-down stone wall we found our trap; some briars held the dog firmly. In it was the foreleg of a red fox, and round it lay the head, the brush and pieces of the hide. This snow for ten or fifteen yards round had been trodden hard.

Evidently half a dozen foxes had come from different directions; and the snow plainly showed that each had approached his trapped fellow in a deliberate and cautious manner, circling and sitting on his haunches with increasing frequency as he neared his victim. It is not hard to imagine the closing scene of the tragedy—an over-mourning ring, small snarling and snapping, the final rush and then perhaps a fight for the spoils.

Village or City? Farmer Filkins was a witness in a case in circuit court. He had given his testimony and was about to step down, when the lawyer who was cross-examining him, asked as a matter of fact: "This took place, did it, in the village of Plunktown?" "Yes, sir," replied Farmer Filkins. "In Plunktown."

"You call it a city, do you?" said the lawyer. "What is your idea of the difference between a village and a city?" "Well," rejoined the farmer, on reflecting a moment, "a village is a place where you can take a drove of cattle through the main street, and a city is a place where you can't."

In Dickens' Home.

Dickens, as was known, was exceedingly fond of music, and has as many musicians as possible come to his remarkable receptions. Clara Novello, one of the foremost singers of her time, tells of one of these musicales. Imagine being at a musicale with Thackeray, Collins, Trollope, Disraeli and Dickens!

"Dickens' receptions in Tavistock street were models of such, not imitations of those of the aristocracy, but superior. I told him that his guests should, most of them, be tickled, like plants in showcases, as celebrities one ought to look at. There came Lord Lyndhurst, Thackeray, Wilkie Collins, Trollope, Barry Cornwall, Disraeli, Lord Carlisle, Brunel, Douglas Jerrold, Egg, Lemon, etc. One room dedicated to music had its quiet respect but in other rooms one could listen to him or other fine talkers present.

"Being requested to contribute by singing, I told him a song was paraded in the pocket of an overcoat in the anteroom. Returning with it presently, he said in his humorous way: 'Rather peculiar, eh? for the master to be seen picking the pockets of his guests—very detrimental to the servants' morals.'

"He embarrassed me by asking which of his female characters I preferred, but I promptly replied, 'Oh! the highest in rank, ranks first—the marchioness, of course.' This pleased him evidently, for upon this he took me into his sanctum, showed me several manuscripts of his works, and he wrote, explaining his system, the chapters, in heads of matter to be developed after, in each chapter, and

the story carried along. Dickens said to me he was sure the public never had from the reading of his books a tenth part of the enjoyment he had himself in the writing of them."

Westminster's Rivals.

In addition to the Imperial Parliament at Westminster, there are several other independent legislative assemblies of the kind meeting regularly within the confines of the British Isles.

Two of these are in Ireland—the Dail, or Free State Parliament, which meets in Dublin, and the Ulster Parliament in Belfast. The assembly in the Tynwald, a genuine parliament in miniature, with an upper and a lower chamber, the latter being known as the House of Keys.

The Manx Parliament claims to be the oldest in the world, having been founded in 938 by a certain King Orry. It levies its own taxes, makes its own laws, and until recently coined its own money.

St. Helier is the meeting-place of the Jersey Estates, the Parliament of the Channel Islands. The assembly sits for three weeks and then disperses but may not speak, and by a "viscount," or provost, who speaks but may not vote. Channel Islanders boast that the rules of procedure governing their Parliament have remained unaltered since 1066, in which year their Sovereign, Duke William, came over to Hastings and annexed England.

Courtesy is one of the finest elements in the love spectrum and the one most needed in the ordinary affairs of life.

The Fascinating History of Radium

A substance thousands of times more valuable than gold, costing over two and a half million dollars an ounce, which cures diseases, yet is so dangerous that contact with it may mean death—such is radium, nature's most precious gift, and the discovery of one of the most remarkable women in the world.

Mme. Curie, French scientist, discovered this wonderful metal twenty-six years ago.

Radium looks like tooth powder, yet \$10,000 worth could be held in a tiny tube.

It is obtained from pitch-blende, a velvety black mineral which was looked upon as waste once uranium had been extracted from it.

In her search for fresh fields to conquer, Mme. Curie made an analysis of a ton of this "waste" and, upon separating all the minerals in it, discovered radium.

The cost of radium is so high because of the labor involved in producing it. To get one gramme, 5,000 tons of ore have to be hand-picked and sorted down to 500 tons, and this in turn has to be chemically treated to produce the tiny quantity of the precious substance.

In the last twenty-six years only six ounces of radium have been produced. The principal radium mines are in Czechoslovakia, which produces four grammes yearly, and in the United States, where the annual yield is thirty-five grammes.

There are thousands of uses to which radium can be put—in luminizing watches, gaslights, and so on—but its great boon is the treatment of cancer and ulcers. Its tremendous heat provides its curative power. The metal shoots out thousands upon thousands of particles a second, but these are so small that in hundreds of years hardly any change is noticeable in the radium.

It was an accident that led to the

discovery of the curative quality of radium. A professor carried a tube containing a little radium in his pocket for three weeks and then discovered he had a bad burn on the skin. Suddenly the idea occurred to him that radium would be better than caustic in burning out cancers. It was tried, with results that have since astonished the world.

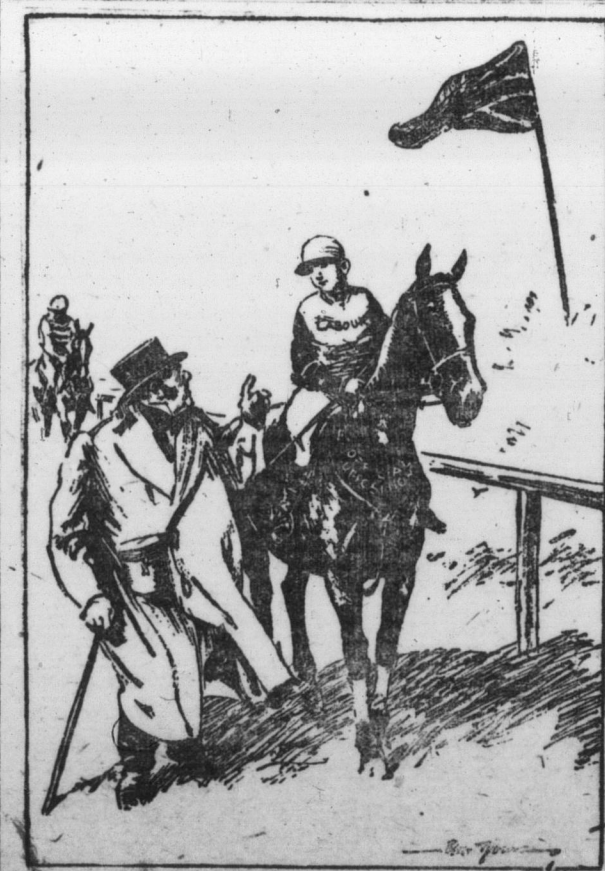
The difficulty in the use of radium was that it might harm the healthy as well as the diseased parts and perhaps cause the patient's death. The problem was overcome by enclosing the radium in a metal tube about an eighth of an inch thick which absorbs the tiny particles thrown off by the substance and allows only the invisible X-rays to pass.

For the actual treatment a sufficient number of tubes are wrapped up in a surgical gauze or stuck into a piece of dentist's moulding-wax, so as to keep the tubes from direct contact with the skin, and the whole package is strapped over the tumor. In treating some cancers, for instance in the tongue, it is difficult to keep the radium in place for the necessary number of hours, so another method is used.

Radium gives off a gas which is collected in small steel or glass needles. These needles can be stuck into the tumors and left there as long as necessary.

The light of radium burns without replenishment for two thousand years, and during that period less than fifty per cent. will have decayed. Since it is shooting off small particles, what becomes of radium after its fire has died out? This magic stone of the scientists changes from the most costly metal into the basest—it becomes lead!

We can hammer radium into powder, freeze it and melt it, but none of these operations interferes in the slightest degree with its activity.



CARTOON
Trainer John Bull—Now, my boy, take the advice of an old hand—don't rush things.



Old Time Chair Tides in New

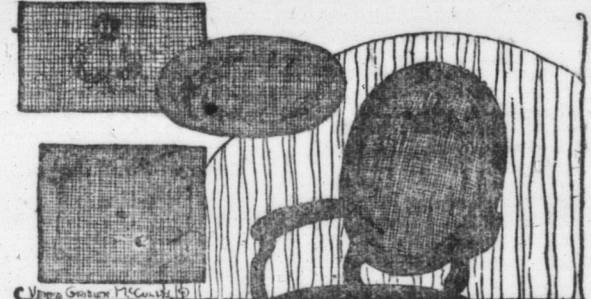
Habituals Charm the Home Maker.

The woman who likes to sew, but who is not an expert sewer, will find an outlet for her activities in following to-day's suggestion and making the gift described. The chair tides pictured in the accompanying illustration had their origin in an old time custom. Houses in early days were not as generally lived in as they are in this age of comfort. Therefore the "best" furniture was kept from use as much as possible and protected from the supposed ravages of occasional use. Hence tides were placed on chair seats and their backs and arms. No matter if the upholstery seldom was uncovered, it must be kept as new looking as possible. The fact that it showed no blemish, though so seldom placed on view, satisfied the heart of the housewives of those times.

Now protection is not the primary use of tides. True, they offer for a certain amount of it, and it is gratefully received by the housewife; but it is to their decorative qualities that they owe their renewed popularity. Those pictured have bright worsted flowers on a cream background, so, of course, they have attracted the attention of this colorful age.

A large square weave net in ecru shade is used as a foundation. Worsted flowers worked in a lazy daisy stitch decorate it, and a buttonhole stitch in green yarn makes a firm border. Trace your design onto the net, and fill in the petals of the flowers with plain colored yarn. It is easy to accomplish and the result will please you.

A Herald-Bum Feature.



The Danger of the Rat

A Cunning Animal—A Carrier of Disease and a Destroyer of Property—Without a Single Trait or Habit to Commend It.

The rat carries bubonic plague. This, however, is by no means the only activity which classifies him as an undesirable. He also spreads trichinosis, certain varieties of tape-worm, infectious jaundice and "rat bite fever." He has been accused of causing attacks of food poisoning, and of transmitting ring worm to the horse. He is, moreover, one of the most persistent destroyers of property known to man and there is not a single useful task which he performs to justify his existence.

The two most common species of rat are the brown and the black. While it is often held that the black one is the carrier of plague, it is interesting to note that it was this same black rat which was said to have been first known to Europe, and that it was the brown one, coming in from Asia, which virtually exterminated it.

Measuring about eight inches in length," says Doelter in *The Rat Problem*, "not including the tail, which is usually shorter than the body; agile and strong, able to run fast, jump high, swim long distances and climb almost any object, using its tail to the utmost advantage; with a fur of greyish brown color eminently suited to its stealthy nocturnal habits; shy singly, but savage, fierce and blood-thirsty in numbers, the brown rat has, aided by incredible fecundity, within two centuries overrun the world."

"Migrating in the middle of the eighteenth century, from Asia into Europe, it met on its march westward the black rat. Then ensued a fight for life and death, which already has ended in the almost total destruction of the smaller and less savage animal, leaving the brown rat the undisputed victor."

In the four hundred years from 1691 to 1900 there were at least thirty epidemics of plague in Europe. In the fourteenth century the disease was said to have killed 25,000,000 of Europe's 105,000,000 population. In 1665 London was overwhelmed with the plague, as every reader of Pepys or Evelyn knows. In 1720 Marseilles lost 86,000 people from the plague; in 1770 the toll in Moscow was 80,000. It swept back and forth over the Balkans and in 1893 it destroyed 150,000 lives in Constantinople, returning eleven years later to claim 110,000 more victims.

While it was noted during the medieval plagues that rats often sickened and died as the disease was spreading, to gain a foothold, the possibility that the rat carried the infection does not appear to have been considered.

Every farmer knows that rats will sneak eggs, kill poultry and other small farm animals, eat grain and otherwise cause financial loss. Rats will gnaw through partitions, floors, gas and water pipes, insulating wires and, in fact, almost everything that blocks their passage.

The extraordinary migratory qualities of the rat render an isolated attack on it of little value. Living equally well under almost any surroundings, able to swim and climb in an almost unbelievable manner, exceedingly wary of traps, shunning poison after it has once observed its effects, and willing to fight fiercely or in bodies when the attack on it at last becomes determined. It is said that "in the autumn of 1722 rats arrived from the East at Astrakhan in such great numbers and so suddenly that nothing could be done to oppose them. They crossed the Volga in immense troops."

The second barrier in ridding the world of rats is the fact that animals are so extraordinarily prolific. The brown rat produces several litters a year; and it is said that within nine months one pair of rats will produce 980 descendants.

The weasel, the pine marten, the kestrel, the ferret and the mongoose are also deadly enemies of rats; so are certain varieties of snakes. Of the domestic animals, the cat and the terrier are by far the most useful; but it is the cat which haunts the alleys and the backyards which is the most valuable.

The common brown rat, in addition to its destructive role, plays a part in the spread of trichinosis, but here it is the chain of rat-pig-man which allows man to contract the disease by eating infected pork. The flea, which is the direct transmitter of the bubonic plague from rat to man, does not enter into the trichinosis cycle. In cases where the check of the plague is sought, destruction of rat-fleas, as well as of rats, must be accomplished. Thus, the public health department of Colombo in 1918 stopped the indiscriminate placing of poisoned baits because of the danger of liberating infected fleas in occupied houses (the fleas, of course, leave the dead bodies of their erstwhile hosts just as the rats are said to desert ships which are unsafe).

The usual methods of systematic rat destruction are poisoning, trapping, and hunting with dogs and ferrets. Preventive measures include the protection of all food supplies in ratproof containers, the destruction of refuse, the rat-proofing of buildings, the protection of drains and sewers, and the fumigation of ships. San Francisco, in its great anti-rat crusade of 1907, following upon the discovery of cases of bubonic plague in various parts of the city, combined these methods of extermination and exclusion with marked success.

A recent Japanese method of dealing with rats in plague-infected areas consisted in attempting to confine all the rats within a suspected territory by means of circumscribing this space with wire netting extending to a depth of 18 inches underground, and then proceeding systematically to exterminate the rats. This drastic measure, however, is employed only in cases where it is felt that the escape of a single plague-infected rat might serve to start a new epidemic.

It is not probable that the rat will ever be completely exterminated. He is too universal, too prolific, too cunning, for that. What can be done is to bar him from our cities and our ships, from our granaries and from our warehouses. This can be done only with the co-operation of all the people who recognize the rat no longer as a picturesque rodent, but as a real enemy of mankind—as real as a black enemy of mankind.

Furnished by the Department of Medical Information—League of Red Cross Societies.

A good wishbone is all right if it is backed by a good backbone.

"Blessed are the merciful."

Any coward can fight a battle when he's sure of winning; but give me the man who has pluck to fight when he's sure of losing.—George Elliott.

THE QUEEN IN THE KITCHEN

The saving of \$100,000 per annum in the expenses of the Royal Household, without impairment of its efficiency or the limitation of any Court functions, has been made possible by the Queen's practical co-operation.

Queen Mary is a most efficient housewife. Brought up in a family not too well endowed with the world's goods, Princess Mary was trained from early childhood in practical housewifery.

Her knowledge has been of incalculable service to her royal husband, for the King is by no means a rich man. The royal grant of \$2,400,000 per annum is little enough when one considers all that has to be done with it.

There is not much left when the expenses of royal hospitality and upkeep have been provided for.

Expenses Carefully Watched. Officers of the Royal Household with high-sounding titles doubtless play their parts efficiently, but probably for the first time in English history we have a Queen on the throne who is also a Queen in the kitchen.

No matter whether at Buckingham Palace, Windsor Castle, Balmoral, or homely Sandringham, she acts as her own housekeeper, and scarcely a day passes when she does not pay a visit to the royal kitchens and household offices.

These visits are by no means of a perfunctory character, for there is not a detail of the household organization with which she is unacquainted. Food, stores, linen, plate, are closely examined, as is the general condition of the numerous departments.

Everything must be spotlessly clean or somebody will soon hear about it. Manual work is reduced to a minimum. Her Majesty is kept informed of any new domestic labor-saving devices. If practical they are immediately installed at the royal residences.

Queen Mary was one of the first to introduce vacuum cleaners and electric cooking, cleaning, and washing devices into her homes. The royal laundries are almost entirely operated by electrical machinery.

The Queen is a kind and sympathetic employer, but she is a strict disciplinarian.

House-Proud—and Proud of It!

Queen Mary is an excellent cook, a shrewd bargainer, and a keen buyer, as those who serve the Royal Household are well aware. Tradesmen who hold the Royal Warrant are required to justify their possession of the honor for she is an expert judge of quality and keeps a watchful eye on daily market prices. When at Sandringham, where their Majesties live the simple home life of ordinary citizens, away from the onerous rituals of Court life, Queen Mary loves to potter about and indulge her gifts of housewifery to the full.

Her Majesty examines personally and checks all bills. No error escapes her. Accounts are settled promptly. She will have none of the system of interminable credits which prevailed in former times. Periodically, household balance-sheets are prepared, so that any undue expenditure may be checked and guarded against. The chief upper servants of the King and Queen always travel with them, thus ensuring a continuity of the domestic organization. The royal wardrobe naturally occupies much of Her Majesty's time. Uniforms, State dresses, regalia, and jewelry require constant attention.

Notwithstanding the services of highly-placed ladies of the household she likes to supervise these things herself.

The Queen will not tolerate waste or extravagance in any form, and in her capacity for making the most of her household allowance she is the equal of her humblest subjects. Her Majesty is house-proud, and proud of it.

India's Queer Gods Number 300,000,000.

India has 330,000,000 man-made gods existing in the Hindu Pantheon. They are all given shape and substance in images.

Ganesha, god of plenty and mirth, has an enormous paunch and the head and trunk of an elephant. Hanuman, the holy monkey god, is the patron of home life.

Vishnu, one of the two greatest of Indian gods, is said to have lived as a fish, a tortoise, a bear and a lion, in his several visits to the earth, and is so pictured. He is called "The Preserver," and in human form is known as Krishna, painted bright blue and standing on a snake.

With 100,000 wives and sons, he is a big figure in Indian religions. His images are dressed, fed, undressed, bathed and put to bed each day and night by his priests.

Siva, the second of the supreme gods, is called "The Destroyer" and more than 1,000 other names. He is a bad fellow, very bad, who loafs around graves and burning places.

His wife is the goddess Kali, an even worse character than himself. She is an awful sight, with a black body, distorted hair reaching to her feet, a necklace of human heads, and her tongue is always sticking out of her mouth. Her chief temple is near Calcutta.

Chatterboxes keep up a kind of dog-light in the mind and fill it with a steady and perpetual severity.

The kingdom of God is not riches and luxury, but right doing and the peace that comes through a conscience void of offense toward God and man.