

## SMALL COTTAGE OF GOOD DESIGN

Basement Facilities One of the Most Important Parts of the Plan Outlined.

HIP ROOF ALSO A FEATURE

Much Attention Given to the Proper Foundations of Structure That is Sure to Give Every Satisfaction to the Occupants of the House.

By WILLIAM H. RADFORD.

Mr. William A. Radford will answer questions and give advice FREE OF COST on all subjects pertaining to the subject of building, for the readers of this paper. On account of his wide experience as Editor, Author and Manufacturer, he is, without doubt, the highest authority on all these subjects. Address all inquiries to William A. Radford, No. 1827 Prairie avenue, Chicago, Ill., and only enclose two-cent stamp for reply.

An English-style cottage with hip roof and basement makes a very satisfactory small house for certain level locations where it is impractical to excavate deep enough for a regular cellar.

There are many towns in prairie sections of the country where the fall is not sufficient to put in deep sewers. Also, in the more southern sections, it is not necessary to dig sewers deep down into the ground to avoid frost. It is cheaper and more satisfactory to lay them near the surface.

On such building sites basement houses are quite common, and this medium-sized cottage, with its cool, roomy basement, is well liked. The basement, being principally above ground, is supplied with windows almost as large as ordinary house windows.

The idea is to make the basement into a splendid workroom. It is naturally cool in summer, warm in winter and comfortable to work in during all seasons. It is the proper place for the laundry and storeroom, besides providing conveniences for doing a great many household chores.

Hip roofs are common in some communities. They are well liked because they are neat and attractive in appearance, and because everybody is accustomed to seeing a hip roof, or cottage roof, as it is often called, so that such roofs are local favorites, and they become fixed as a permanent fashion.

The pitch of the roofs varies in different sections, according to the amount of rainfall. Also, the material for covering roofs varies in the different parts of the country, owing to local fashions or customs, and to the fact that certain roofing materials are cheaper in some places, and consequently are more in demand.

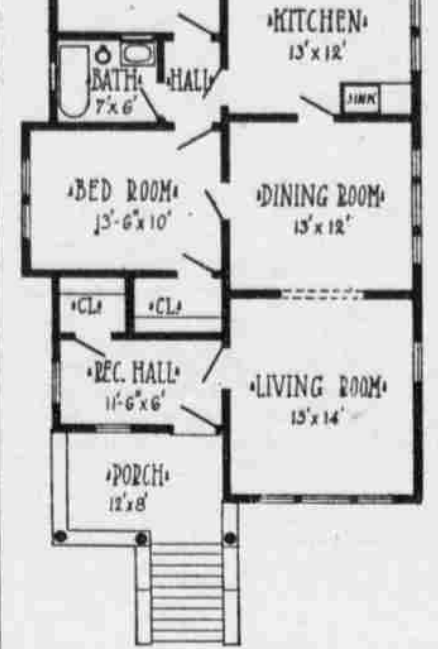
The foundation of a house like this usually is made of concrete or stone.

has been found that a partition through the center of the house, dividing the living rooms from the sleeping rooms, is the most satisfactory arrangement.

The bathroom naturally belongs between the two bedrooms, as shown on this plan.

The exposed interior woodwork all through this little house is plain and neat, being selected because the design is smooth and straight, with square corners. These strips of plain straight wood have taken the place of old-fashioned moldings that often were deeply recessed. People building these cottage houses like to see considerable interior woodwork, so that mill-work factories are turning out patterns especially suitable for such artistic homes. The one particular pattern that may be chosen is carried through all the rooms on the main floor, so that they all correspond in workmanship and interior finish.

All modern houses are well lighted. It is the fashion to put in double or triple windows wherever wall space will permit. It is easy to shut out the light with a dark green shade, but if the window is not there the housekeeper is helpless on dark days. Also, large windows and plenty of them add very much to the appearance of a



Floor Plan of Cottage.

house from the outside. It is a fashion that looks well both inside and outside.

The basement of this house may be well furnished and made pleasing in appearance as well as comfortable. If the walls are plastered or covered with wall board and painted, a very neat interior may be made at little expense.

Some of these houses are arranged for storage in the front part of the basement. This is naturally the coolest end of the house. The furnace and heating apparatus occupy a large portion of the back end, where it is



The foundation walls may reach up to the main house floor, or they may stop at or a little above the lot grade line. It may be cheaper to build a superstructure of wood from the ground level up. This is done by placing the sill on the foundation wall, then either build a superstructure of 2 by 6 uprights to support the house sill, or the joists are made long enough to reach from the foundation wall to the plates. With this construction a 2-inch strip is gained into the studding to support the outer ends of the floor joists. The floor joists also are spiked into the studding, so that the building is all tied together at the house floor.

A very pleasing effect is secured by building the porch partially into the house proper and extending it a few feet out beyond the house in the manner shown in the perspective.

Because the veranda floor is built 6 or 7 feet above grade the front steps are necessarily longer, and they are built wide to reduce the long effect. For the same reason the ramparts are built at the sides of the steps in two divisions, as shown in the perspective.

The main floor is high enough from the ground to satisfy certain timid people who object to living or sleeping close down to the ground. Low-down bedroom windows seem so easy of access from the outside. This probably is one reason why houses of this design are so popular in certain sections of the country. A large number of people have a horror of night prowlers, very often unnecessarily so. At the same time, they have their likes and dislikes, all of which affect the selection of certain house designs.

All the living rooms and bedrooms are high enough from the ground to be safe from ground moisture, which is another consideration when building a one-story house in this way.

The plan shows three living rooms on one side of the house and two bedrooms and a bathroom on the other side. The living rooms usually are laid out for the sunny side, and the bedrooms on the north or east. It is easy to reverse a floor plan to bring the rooms on the right side of the house.

In building cottage or bungalows it

customary to have an outside entrance.

At the rear is a double outside stairway with a grade entrance. There are 9 or 10 steps up to the porch, and 2 or 3 steps down the other way to the basement. This makes the basement easy of access from the garden, which will be appreciated on wash days and at other times when moving articles in or out of the basement storage room.

**How He Caught Cold.**

A young British officer home on short leave from the front attended a dinner party with a very bad cold. "I expect you caught it in those terrible trenches," murmured his sympathetic hostess. "No," was the reply. "It's due to my coming home. I never used to catch cold in the trenches." "Isn't that singular?" exclaimed the lady. "Not at all," replied the officer. "I've very imprudently taken baths since leaving France."

**Collars for Convicts.**

One of the latest reform schemes at Sing Sing is that of letting prisoners dress up on Sunday. "One of the men was wearing the first white collar he had worn in ten years," Assistant Warden Johnson is quoted as saying. "And he spent the whole of Easter morning telling how good it felt." It is said that now, if the men can afford it, they may on Sunday go as far as they like, even to silk underwear and fur overcoats.

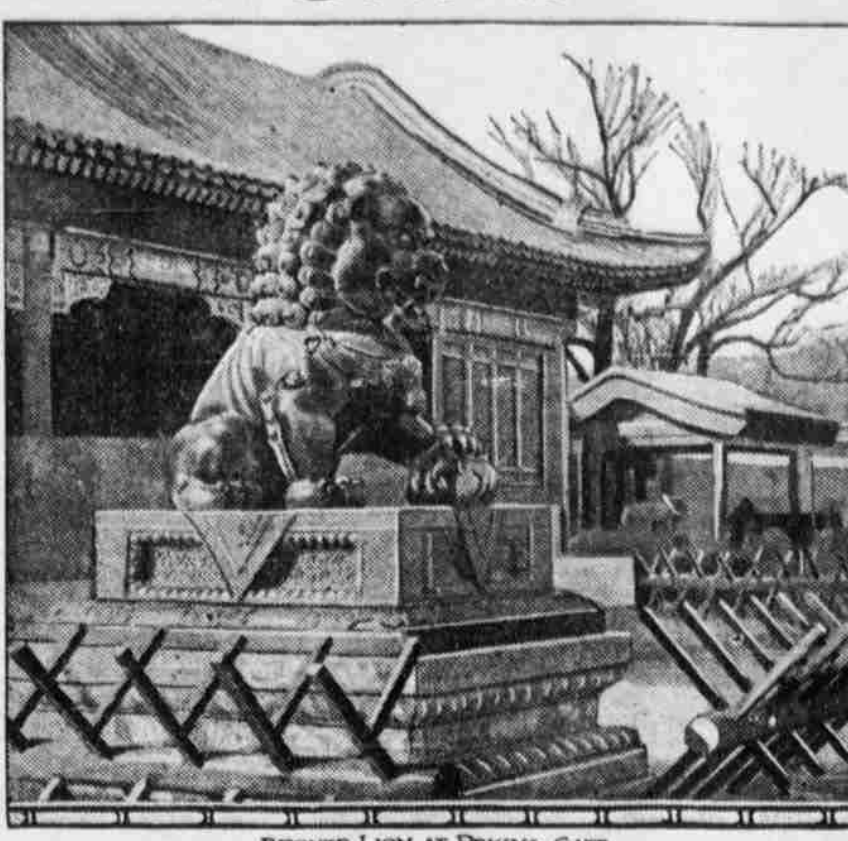
**Have to Tempt 'Em.**

Perhaps the newspapers throughout the country which have been printing a story about a Boston dog that eats beans will be interested to know that there is a Boston cat that will eat beans if turkey gravy is put on them. —Boston Globe.

**Cause of His Pessimism.**

Orator—"On the surface things are often right, but it is when we explore the depths of things that we see the deceptions of our fellow creatures." One of the Crowd—"Guv'nor, you've been buying a barrel of apples, haven't you?"—Tit-Bits.

## The AWAKENING of CHINA



BRONZE LION AT PEKING GATE

ONE of the most striking illustrations, to the stranger, of the awakening of China is seen in the contrast between the fine new buildings of the University of Nanking and the old examination halls, in ruins.

For many generations these halls represented to the Chinese their highest culture. They are located in the old part of the city and cover a large space. They were built in the fourteenth century, by the Ming emperor Hong Wu, a great patron of learning. He codified the laws, and established schools in all the chief cities and towns, wrote Dr. Vachel T. and Catherine F. Lindsay in the Illinois State Register.

These halls, in general appearance made us think of stalls for animals on some county fair grounds, only there were more of them. They were in long brick sheds, the cells separated by partitions, and about five feet square, the slanting roofs being made of tile. They were intended to accommodate about thirty thousand students. Each line of cells was open to the south. A narrow board on the floor of the cell, answered for a bed at night, two boards across at proper heights for seat and desk, niches in the wall for food basket and candle. Each student was expected to prepare an essay on the books of Confucius, Mencius and their disciples and commentators. No original ideas or personal experiences were to be introduced.

There is a high tower near the center of this inclosure from which the long lines of tiled roofs are seen, many of them in ruins, all overgrown with high weeds, wild vines and moss. In looking through "A Guide to Nanking" we found one mention of these honored halls in the descriptions of "Most Noted Places," formerly the equivalent in China of all the universities in our East combined. On the same page of the catalogue there were mentioned 48 modern schools for all purposes one could well think of—military, commercial, surveying, drawing, naval, police, polytechnic, prison reform, law, normal, language, silk-worm and mulberry, theological, Biblical, with many that indicated special studies and industries for girls.

Most of these are established in good modern buildings in parklike inclosures, with lawn grass, trees and flowers, and rooms equipped and set apart for their special work. The Chinese are given to vocational training. They have an elaborate system of division of labor. They do not believe in a "man of all work."

**Confucianism and Idols.**  
We hear a great deal about the superstition and idolatry of the Chinese. We were astonished to find in Nanking, and indeed everywhere we went, the Buddhist temples either grown up in weeds, the idols in many places covered with dust and broken, or the idols thrown away and the buildings transformed into modern schoolhouses. Idolatry in China is largely a growth through centuries that has gradually developed from Buddhism, just as we see all manner of fungi attached to a dying tree.

Confucianism is not idol worship. In its principles it is purely a code of ethical laws. Its fundamental laws are strikingly similar to the laws of Moses. Consequently a person may be a Confucianist in a general sense, and at the same time a Christian. It is quite worth while just here to call attention to the fact that Confucius lived about five hundred years before Christ, more than a century after the

**Flashes Which Carry Lights.**  
Certainly among the most remarkable of fishes are those which are provided with lanterns of their own and which swim around the dark recesses of the bottom of the deep ocean where no ray of natural light from above can penetrate. A model of one of these fish, notable for their phosphorescent organs, is on exhibition in the United States National museum. The sides of the fish are regularly dotted with luminous spots, which, in addition, there is a large luminous area, like a lantern, on the top of the head. This extraordinary creature must present a singular appearance when swimming in the dark abysses of the ocean. In the model the luminous spots on the sides are represented by buttons of glass, connected with the interior by tubes.

**Fire Lasted Five Years.**  
Perhaps the most remarkable beginning and ending to a colliery fire was in the case of a mine near Strling, Scotland, belonging to the Sauchie Colliery company. The first shaft they sank was abandoned in favor of another in a better position. The diseased shaft became the secret headquarters of a gang of illicit whisky distillers. In the abandoned mine works they set up their still, and turned out thousands of "drops of Scotch" that had never paid duty. One day, however, the fire from their furnace set the coal seam ablaze and they had to fly for their lives. In a very short time flames were pouring from the cracks in the ground, lighting up the whole countryside. The fire was walled in with mud, at a cost of \$80,000, and then it was useless. Finally they sealed up the mine, pumped carbonic acid gas into it and the fire that had taken five years to fight was put out.

**Kirking.**  
"Very gratifying!" said a young and conceited novelist. "A gentleman writes me that he took a copy of my last work to read during a railway journey, and as a result suddenly discovered he had gone 20 miles beyond his destination." "Dear me!" commented the young author's friend "sleeping in trains is a bad habit!"

## SURPASS THE BIRDS

Aviators Fly Higher Than Denizens of the Air.

Records Show That Heights Reached by Man Are Far Above the Winged Creatures—Some Experiments of Interest.

It may be gathered from the war news that aviators in the war zone are making many spectacular flights, covering longer and still longer distances from the actual battle lines and giving indications that their aim in dropping bombs is improving. One wonders if the record of these flights is being kept for examination, reference and comparison when peace returns, so that they may be looked at side by side with the flight records made in calm and peaceful period before the nearly world-wide slaughter began.

Just before the outbreak of the war there was a season of recordbreaking in aviation, and especially by German aviators. July 9, 1914, Otto Linnkegogel drove a monoplane up to 21,645 feet at Johannisthal, and July 10 Heinrich Orlich, in a biplane, exceeded that height by more than 3,000 feet, going up to about 25,000 feet near Leipzig. That was almost 10,000 feet higher than Mount Blanc (15,782), and almost 5,000 feet higher than Mount McKinley (20,300), and the altitude attained by that biplane was nearly five miles above sea level.

It has been computed that if the height reached by Orlich is not near the limit of biplane ascent, it must be near the limit of altitude at which a man can live. It is set forth in some of the older records of ballooning that April 15, 1875, Gaston Tissandier, H. T. Sivel and J. E. Croce-Spinnelli made an ascension from Paris in a balloon which they called the Zenith, and that they got up to 27,950 feet, but only Tissandier came down alive. The others perished in the rarefied air, being dead in the basket when the balloon returned to earth.

James Glaisher, an Englishman, in a balloon ascension which he undertook from Greenwich observatory September 5, 1862, to make observations of the higher strata of atmosphere, reached an altitude considerably above 20,000 feet. He estimated, from the fact that the balloon was rising 1,000 feet a minute when he became insensible at 29,000 feet and was falling 2,000 feet a minute when he came to himself thirteen minutes later, that he reached an altitude of 37,000 feet. This conclusion was not accepted by the scientists at that time, but they allowed him an altitude greater than 29,000 feet. The material fact was that Glaisher collapsed at that height.

It has been said by those who have given particular consideration to the question of extreme height at which human life can be supported that no mountain climber has ever reached 25,000 feet. Whymper's experiments show that above 15,000 feet the slightest exertion is painfully difficult, though it has been also recorded that the Duke of the Abruzzi climbed to 24,883 feet on Bride peak in the Himalayas and did not suffer from mountain sickness, and Filippi, the chronicler of that expedition, expressed the belief that with the equipment for mountain climbing now available a man might go still higher.

There was a more or less interesting experiment July 31, 1901, when, in a balloon ascension, a barometric reading of 24,000 feet was attained, but the aeronauts, although they carried with them and consumed a supply of oxygen, became insensible about the moment that altitude was reached.

Birds do not fly very high compared with the heights reached by man in balloons and aeroplanes. Gay-Lussac, a balloonist, in 1850 threw out carrier pigeons at heights above 20,000 feet, but these birds fell heavily toward

denser air. The condor nests above the ten-thousand-foot level, and Alexander von Humboldt reported that he once saw this great bird soaring at a height which he estimated at 23,000 feet.

More airmen are steadily on the wing today than at any other time in the history of the race, but it is plausible that they are not wasting petrol and imperiling themselves and their machines at greater heights than to avoid shrapnel and too easy observation. Their object is to keep as close to the earth as they can, so that their reconnaissance may be the more accurate and complete, and if engaged in dropping bombs they may increase their chance of hitting the object they would destroy.

## DANGER IN CLOSE ALLIANCES

Investigation Has Shown That Cancer Is Most Probable When Cousins Are Wedded.

Speaking of the possible hereditary tendency to cancer, Dr. Charles H. Davenport of the eugenics laboratory at Cold Spring Harbor, N. Y., says of the fact that the incidence of cancer is highest in Maine: "I have no doubt that this is due to the presence of one or more races in Maine which are non-immune to cancer."

Doctor Davenport's studies "indicate that resistance to cancer is a positive (dominant) trait and that nonresistance appears in children only when both parents belong to a nonresistant race. And this result is commonest, other things being equal, where cousin marriages are commonest, because that makes it probable that is one parent belongs to a cancer race, the other—the cousin—will belong to the same cancer race. Now, in rural Maine cousin marriages are extremely frequent, especially in the islands off the coast, and here we have the conditions for the result—the high incidence of numbers of the cancer race in an inbred community."

**Harmless.**  
The commuter was plainly excited. He pounded the seat cushion in front of him as he spoke, and his voice rose high above the rattle of the wheels.

"No matter what my earlier views were," he exclaimed, "I've changed radically. I'm for the Reds now against all comers."

A timid little man across the aisle edged quietly out of his seat and sought the conductor.

"It's an outrage," he exclaimed. "An avowed anarchist like that fellow ought not to be allowed to ride in a public conveyance."

"He's no anarchist," said the conductor with a grin. "He's a chicken raiser. Just now he's expressing his views on the merits of the Rhode Island Reds, the best little layers in seven states."

**Pennsylvania Nature Story.**  
Arthur Neefe of Sweden, Bradford county, set a trap in the woods, and on account of the snow was unable to get to it. Last week it was visited and a lively fox found therein. The captive had been sustained by his fellows during the imprisonment. Within reach were a gray rabbit, a white rabbit, four mice and a woodchuck, some of them partially devoured. Imprisoned, he had been visited and nourished by his own tribe. He was taken into further captivity, and other than the loss of the foot by which he had been held in the trap, appears none the worse for his experience. —Philadelphia Record.

**A Slight Mistake.**  
"Was it the Goodchild ranges the Russians have been driven from?"  
"There's no such place as the Goodchild ranges."  
"I mean the Beskids—same thing."

No matter how insignificant a man may be, he is firmly convinced that his superiority will some day be recognized.

## WOMAN COULD HARDLY STAND

Because of Terrible Backache. Relieved by Lydia E. Pinkham's Vegetable Compound.



Philadelphia, Pa.—"I suffered from displacement and inflammation, and had such pains in my sides, and terribly backache so that I could hardly stand. I took six bottles of Lydia E. Pinkham's Vegetable Compound, and now I can do a very amount of work, sleep good, eat good, and don't have a bit of trouble. I recommend Lydia E. Pinkham's Vegetable Compound to every suffering woman." —Mrs. HARRY FISHER, 1625 Doughton St., Nicetown, Pa.

**Another Woman's Case.**  
Providence, R. I.—"I cannot speak too highly of your Vegetable Compound as it has done wonders for me and I would not be without it. I had a displacement, bearing down, and backache, until I could hardly stand and was thoroughly run down when I took Lydia E. Pinkham's Vegetable Compound. It helped me and I am in the best of health at present. I work in a factory all day long besides doing my housework so you can see what it has done for me. I give you permission to publish my name and I speak of your Vegetable Compound to many of my friends." —Mrs. ABEL LAWSON, 126 Lippitt St., Providence, R. I.

**Danger Signals to Women**  
are what one physician called backache, headache, nervousness, and the blues. In many cases they are symptoms of some female derangement or an inflammatory, ulcerative condition, which may be overcome by taking Lydia E. Pinkham's Vegetable Compound. Thousands of American women willingly testify to its virtue.

## GULL IN STRANGE MISHAP

Bird's Life Endangered When its Beak Was Crught Between the Shells of Clam.

At first thought it is hard to imagine how a clam could endanger the life of a bird. That such a strange circumstance is not impossible is shown by the following incident.

A settler on one of the small islands near Vancouver was returning to his home by way of a beach of hard sand, when he beheld an unusually large flock of seagulls gathered in a compact mass and beating with their beaks and wings upon the said. Evidently they were attacking some enemy. Overhead dozens of gulls wheeled and screamed in evident excitement.

The settler was almost upon the fighting birds before they burst apart and flew, chattering, toward the clouds. One, however, lay flapping upon the ground, and the man saw that a monstrous clam held the gull's beak in a vise-like grip. It was too heavy for the bird to fly away with, and for all the gull's frantic struggles, it could not loosen the clam's tenacious grip.

With his hunting knife the man pried open the shells and freed the captive. The gull was exhausted from its desperate efforts, and at first could only stagger like a drunken sailor toward the water. Finally, however, it flew away, and soon returned in the van of a cloud of gulls come to inspect the enemy that had trapped one of their tribe. —St. Andrew's Beacon.

**A Left Hand.**  
"No matter how many times a girl gives her hand in marriage to a man," remarked the Observer of Events and Things, "she always has one left."

He's a poor actor who can't get any one to take his part.

## "An Old Man at 40"

How often you hear that remark! How many such men there are! And how needless it is!

Wrong food is the big cause.

When one feels old at forty the first thing is to correct improper diet. The main fault with the dietary is often a lack of the vital mineral salts in food. Without these mineral elements old age steals on rapidly.

To meet this very condition a food was devised which supplies those mineral elements such as phosphorus, iron, sulphur, etc.

That food is

## Grape-Nuts

Made of whole wheat and barley, this delicious food retains all the nutriment of these grains, together with the priceless mineral elements—notably lacking in white flour foods—which the system must have to build and maintain vigor and elasticity of body, brain and muscle.

One can avoid this "old-age-at-40" business by proper eating and living.

## "There's a Reason" for Grape-Nuts

—sold by Grocers everywhere.

