

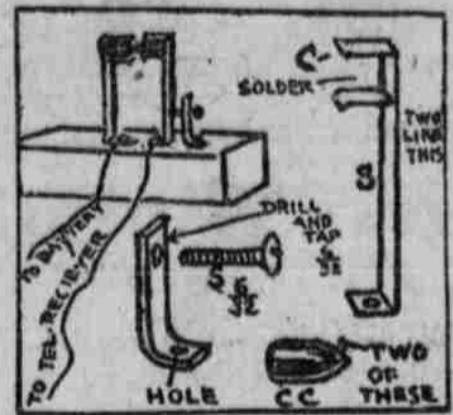
# For the LITTLE ONES



## HOW TO MAKE A TELEPHONE

Detailed Directions Given With Illustration Showing Construction of Instrument.

I wanted to build a telephone set some time ago, and made a transmitter like the sketch. I found that if it was placed in any part of a large room the slightest whispers could be plainly heard, a watch could be heard ticking, and if a fly walked upon the box that forms the base every step sounded loud and plain. It is easy to make and very cheap, says a writer in the Chicago Tribune. Get two pieces



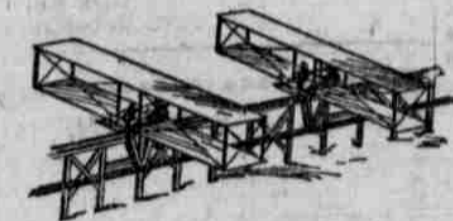
Home-Made Telephone.

of carbon one inch long (carbon that the electrician throws away when he fixes the corner arc light will be all right). Scrape one end of each down to a point with a file or a knife and smooth it off with a piece of cloth; it will rub into a nice polish (c c). Get two pieces of spring brass or copper five inches long, bend them up straight one inch from the end and punch a hole in the short bend, as in the sketch (s). Make two little clips to clasp the carbon as in the sketch (c); these are made of spring brass 2 1/2 inches long, one inch of each end being bent up straight, and solder them to the top of the longest ends of the springs (s). Get a piece of brass three inches long and bend up one inch from the end; this brass should be one-half inch wide and one-eighth inch thick. A hole is drilled in the bottom big enough to let a 6-32 machine screw pass through. In the long end drill and tap for 6-32 machine screw; this must be done by a machinist or blacksmith. It will be done for a few cents. A sounding box is needed; a cigar box will be just right for this. Tear the lid off, and on the bottom drill two holes two inches apart, and screw the two brass springs to this by passing brass machine screws through the holes and using a small nut on the inside of the box; these screws are 6-32 x 1/2 inch. One-half inch from one spring screw the screw holder (h) by the short end to the box in the same way.

## AEROPLANE IS VERY AMUSING

Imitation of Flight Given as Closely as Possible Without Attendant Danger.

The aeroplane has not yet reached a stage that would warrant its use as a means of thrills for the general public at amusement parks. The next best thing, therefore, is some device that will give as close an imitation of flight as possible without the attendant danger of real flight, and the apparatus shown in the illustration has



Aeroplane Amusement Device.

been evolved to this end. The aeroplanes used are provided with two comfortable double seats, and have bearing wheels which run on an elevated mono-rail. Guide rails are located three or four feet below the bearing rail to keep the aeroplanes from tipping over. To carry the deception of actual flying as far as possible, each machine is provided with a guiding or elevating plane and a controlling wheel.

### A Big Bonfire.

One of the largest bonfires the world ever saw was kindled about forty years ago on the Malvern hills in Great Britain. It was seen at a distance of sixty or seventy miles. The materials employed made a stack thirty feet high and thirty feet square. There were used in building this pile 450 fagots, twelve poplar trees, two tons of coal, five cords of wood, four loads of hoop poles, two loads of furze, two barrels of tar, twelve empty tar barrels and a barrel of naphtha. This mass of inflammable material was piled on a hilltop 1,000 feet high. There have been much larger fires in nearly every large city, but this holds the record for "fun fires."

### Didn't Like It.

A little country boy during a visit to the city was obliged to drink condensed milk. "Mamma," he said, "I'm glad we don't have condensed cows at home."

## HARRY AND HIS AIRSHIP.

Harry built an airship  
To sail up in the sky;  
He told his little sister  
He meant to sail "on high."

He worked all morning on it;  
He worked all afternoon;  
He said he wished to finish  
His wondrous airship soon.

When done, he climbed aboard it,  
And cried to sister, dear:



"Look out! I think I'm rising.  
You mustn't come too near."

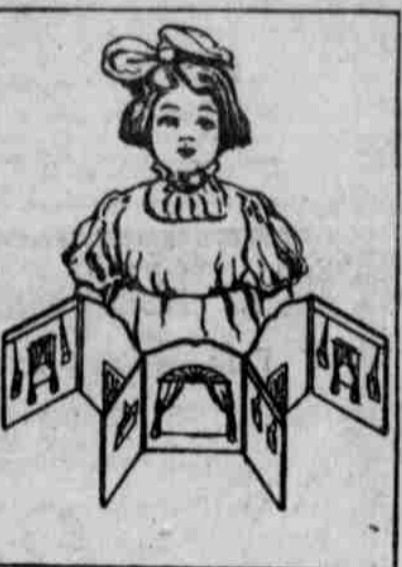
But not an inch budged a ship;  
In vain young Harry tried.  
He coaxed, he pushed, he lifted;  
Then sprang he out and cried:

"Well, just stay there, old airship!  
I'd not sail, anyway.  
I'd rather play with sister;  
And on the safe earth stay."

## EXCELLENT AS A PLAYHOUSE

Made of Old Cardboard Boxes and Folds into Flat Surface—Amusing for Girls.

A toy to help the little girls "play house" has been devised by an Illinois man, but one bright boy can make one for his little sister. Take some old cardboard boxes that are in good condition—the heavier the cardboard the better—and cut them up till you have seven pieces a foot or fifteen inches square. In one of these cut a large window, like those seen in some parlors; in two of the pieces cut windows of ordinary size, and in two others cut out sections for doors. The remaining two pieces are to be used as inside partitions. Cut strips of cloth an inch wide and the length of the house walls, and by gluing these strips along two edges of two walls the whole set can be hinged together with the big window in the center, the door sections adjoining it, the other win-



Toy for Playing House.

dow pieces on the ends and the partitions in between. This forms a three-room house, the interior of which can be decorated with paper, pictures and curtains according to the taste and ability of the decorator.

## BOYS ORGANIZE UNIQUE CLUB

They Thought They Would Follow Example of Their Elders—Methods Entirely Original.

Boys are imitative creatures. They like to do what they see their elders doing and sometimes they improve on the example set them. A club woman tells a story of how her small nephew and his friends caught the organization fever and got up a club of their own. The methods of the Junior Athletic club were entirely original. Its business seemed to consist principally of electing and expelling members, the same member being taken in and put out again several times a week.

"What did you do at your meeting?" the aunt inquired one day.

"We lectured some officers."

"Why, you elected officers last week."

"Yes, but they didn't act good, so we thought we'd lect some new ones."

"Tom can't come much," went on the clubman, "so we made him a premonitory member."

"A what? Do you mean honorary?"

"Yes, I guess that's it. He has to pay dues, but he doesn't have to come unless he can." This implied merely that Tom was exempt from being seized by the neck and brought into the meeting without his own volition.

"And, you see, he's got to be honorable," added the small boy, severely.

"We've got a dollar," he continued, "in the treasurer! Has your club got any more than that?"

"A little more," meekly replied the aunt, whose club is one of the largest in the country.

### A Wonderful Cave of Ice.

No one knows how many wonderful caves, more extensive, perhaps, than the vast mammoth cave of Kentucky, yet remain to be discovered. Not long ago some boys accidentally found the entrance to a marvelous cavern of ice at the foot of Cow mountain in Colorado. Three great chambers of it already have been opened, the walls and ceilings of which are covered with great masses of ice in grotesque forms. In the center of one of the rooms is a lake nearly fifty feet square with no apparent outlet.

What an excellent refrigerator such a cave would make! It would supply the needs of a whole city.

# The Onlooker & WILBUR D. NESBIT

## The SWATTER MAKER



The Keyes Colony House.

"I love the fly, the little fly  
Which buzzes on the wall;  
When it in flight goes zooming by  
I do not care at all.  
I do not lift my hand to smite  
Nor sticky paper spread—  
I love to hear the tricky sprite  
Go humming round my head."

"My head is bald as any egg,  
It's bare from ear to ear.  
And when a fly would scratch its leg  
Against it, it brings cheer.  
I am not one who pulls a frown  
And gives a raucous whoop  
When some poor fly may tumble down  
Into his plate of soup."

"Ah, no, I lift the poor fly out  
And once more set it free;  
To see it sailing roundabout  
Is happiness to me.  
I have an auto that can race,  
I have a yacht that's fine,  
I have a town and country place,  
A bank account is mine."

"My wife wears jewels big and rare,  
She has two hundred hats,  
And she can buy the finest hair  
Also the largest rats.  
My daughter's married to a prince  
Who has a ruined hall;  
I love the fly, I tell you, since  
The fly has done it all."

"My son wears an outlandish suit  
And yells a college yell;  
We always eat imported fruit  
And live exceeding well.  
I love the fly—I'll tell you why  
Prosperity I've got;  
I make the swatters that you buy  
The little fly to swat."

## SCIENTIFIC NOTES.

Ice cream containing no more than 5,000,000 bacteria to the cubic centimeter is considered safe. This means about 18,000,000 to the square inch. By counting them five at a time you will not delay your dinner much.

The force of gravity decreases with the distance from the earth. Thus, when you fall downstairs, you do not fall nearly so hard at the top of the flight as when you are at the bottom.

The theory that a cold in the head is caused by a germ which does not become active until the feet become wet or cold is now placed in conflict with the fact that legless men have colds in their heads.

While reading it requires one-millionth part of a second for the idea to be transmitted from the retina of the eye to the brain. This is in some cases; in others it is impossible to transmit the idea in a million years.

It requires one hundred years for the light of some of the fixed stars to travel to the earth. By that time it has forgotten what it came for.

### The Oyster.

The oyster is a calm, unemotional institution.

A clam is alleged to be happy at times, but the oyster never manifests much feeling, if any.

The oyster grows its own clothes; and as it spends all of its time in its bed, it needs to grow but one sort.

If the oysters were to be inspired by the modern fever of advancement and social life, it would have to grow eight or nine suits or dresses, as the case might be.

Oysters are prepared for food by removing their shells, which then become mother-of-pearl. Many people have become fabulously rich because pearls are found in oysters. These people become rich by selling the oysters.

The oyster has never been successfully trained to do a turn in vaudeville.

### Agreement.

"O, I don't know that she is so beautiful," says the first individual.

"Not beautiful? Has she not a marble brow, an ivory skin and ruby lips? Not beau—"

"Conceding all that, am I not justified in asserting that she has a hard face?"

### The Old Rake!

Old Gentleman—What a pretty little lady.  
Five-year-old Boston Girl—Sir, I'll call a policeman if you annoy me further.—Life.

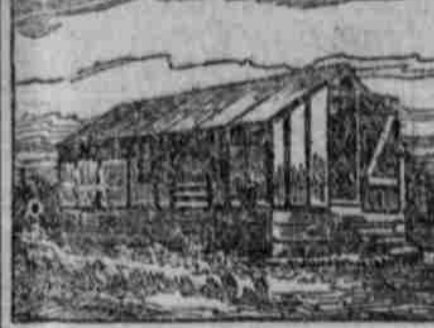
Wilbur D. Nesbit.

# POULTRY

## COLONY HOUSES FOR POULTRY

Less Liability of Spread of Disease Where Flocks Can Be Kept Separate and Given Range.

There are many advantages in keeping fowls in small flocks. There is less liability to the spread of disease and they may be given freedom of range. Although the colony houses would cost more than a long building,



The Keyes Colony House.

there are no fences to put up and they may be occasionally moved to clean, uncontaminated ground, says the Farm and Home.

Colony houses can be built any size desired, but one large enough to accommodate from 40 to 50 fowls will give best results. Two types of houses are shown herewith. The Tillinghast house is one of many in use on the large poultry and fruit farm of G. G. Tillinghast of Hartford county, Conn. It is built of a single thickness of boards and is divided into two compartments, one being used for laying and sleeping quarters and the other for a scratching shed.

A better and somewhat more expensive house is the Keyes house, which is 10x20 feet, 4 feet high at the eaves and 8 feet at the ridge. Three roosts run across the short way of the house at the rear end, which is made tight. There is a door in front and a large window at the west side, which is closed with a glass sash in severe weather. Otherwise the house is open both day and night, the door and window being covered with wire netting. Over 20 of these houses are used on a Massachusetts poultry farm. They are also used largely by Mr. Tillinghast, who builds



A Tillinghast Colony House.

them of inch matched boards, both sides and roof. The one illustrated is covered with a good grade of prepared roofing.

## CARE OF POULTRY DROPPINGS

Only Way to Save Nitrogen is to Get Fresh Manure Into Soil Immediately—Heats Rapidly.

(By H. B. SPECK.)

Some years ago Peruvian and other guanos were largely used by farmers. When pure these guanos consisted of the manure of sea birds. In the rainless regions of the west coast of South America vast numbers of sea birds go to certain islands to breed and roost. As it seldom or never rains there, the manure dries rapidly. Mixed with it are bodies of dead birds and fish, on which the birds feed. This material is dug up and crushed into a powder and makes a fine fertilizer.

Some farmers had an idea that hen manure is as valuable as this guano—because both are bird manure. This is not so. The value of manure depends on what the animal eats. These sea birds live largely on fish—food rich in nitrogen and phosphoric acid. Naturally their manure is richer than that of hens fed largely on grain.

Every one knows that ground fish or meat would prove a better fertilizer than corn meal. The same difference must be found in the manure made from feeding them.

Another difference is found in the fact that the guano is promptly dried and has no chance to heat and ferment, thus driving off its nitrogen. On the other hand, every one who keeps poultry knows how quickly hen manure gives off ammonia, for this is plainly evident in the smell. As hen manure is usually handled, probably half its nitrogen is lost in this way.

With other farm animals the solids and liquids are voided separately—and as all know the liquids contain most of the available plant food and are most likely to ferment and send off ammonia. In the hen the solids and liquids are voided together. Most of its nitrogen is in the form of uric acid, which decays rapidly and forms ammonia quickly. When it is left exposed so it will heat there is great loss.

### Keep Yards Clean.

Keep the poultry yards cleaned up and allow nothing that has been left unattended by the fowls to accumulate and decompose.

# KEEPING SWINE HEALTHY IS OF THE UTMOST IMPORTANCE

There is No Theme Upon Farm That Will So Benefit Farmer as to Keep Quarters and Surroundings in Sanitary Condition Where Hogs are Kept—Guard Against Cholera.



A Desirable Hog Cot.

(By GEORGE W. BROWN, Ohio.)  
There is no theme upon the farm that will so benefit the farmer as to keep the quarters and surroundings of the farm in a sanitary and healthful condition where swine are kept.

Nowhere will an outbreak of cholera become so disastrous as upon the farm where these animals are kept with dirty, filthy surroundings, and no care taken in the disinfection of the nesting places and slop troughs during the summer time.

Upon our farm we have never practiced the method of keeping a herd of swine in one place very long, and never do we fatten out more than one bunch of animals in the same field in one year, preferring rather to shift our operations about from place to place.

We have no permanent quarters, but rely upon the service of the cot, shown in the illustration.

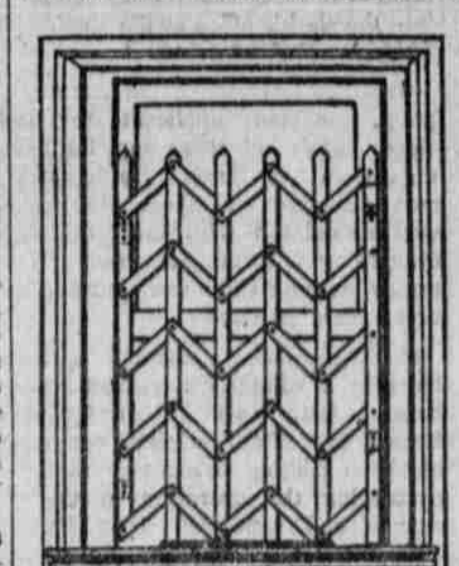
These bunks can be shifted about easily upon runners, and many times each year are changed from one field to another, or from one pen to another, thus we always have the animals in fresh sleeping quarters, and upon fresh forage. While the animals are located upon a new range, we break up the old range, cropping it in some profitable farm crop, thus getting the benefit of all excrement from the animals, profiting in its enrichment of the soil, and we as well freshening and sweetening the soil by cultivation.

Then swine should be supplied with some shade aside from a board shelter to ward off the heated rays of the summer sun. There is nothing for this purpose quite so nice as clumps of willows, catalpas or poplars grown in some convenient location in each field, preferably along the fence row, in such manner that the animals may have access to the cooling shade during the heat of the day.

## USEFUL GUARD FOR A WINDOW

Missouri Man Has Invented Gate That Will Be Found Convenient for Variety of Uses.

The door and window guard patented by a Missouri man has a variety of uses. It comprises a gate made of parallel pickets linked together by short cross bars and sliding easily back and forth on rollers. It can be folded up into small compass against one side of the opening it guards or stretched all the way across and made fast. The uses to which such a gate can be put are both numerous and obvious. It can be attached to



Door and Window Guard.

home or store window to bar thieves and in that case is made of iron and padlocked in its open position, or it can be made of wood and erected at any opening through which a baby could fall, particularly at the head of stairways in the house or on the porch, in place of the gate of solid construction most used for such purpose. The height of the pickets, of course, will vary with the requirements.

## PROPER PLACE FOR CHICKENS

Should Not Be Allowed to Roost on Top of Harness or Buggy—Should Have Good House.

One of the most important things in the care of laying hens is the house that they are to live in. On most farms it used to be that the hen roosted any old place, and her favorite place was on top of the harness or buggy. And when they could not reach their favorite place, they took to the trees, but I can say that the hen's life on the farm has changed, for now you see nice houses and yards for them, says a writer in the Successful Farmer.

A good poultry house may be defined as one that is dry, warm and ventilated, and fitted to accommodate the kind of fowls that is to be kept. A stationary house suitable for any kind of fowl may be built of stone or brick, but the best house is built of lumber made in a size suitable for moving once a year at least. Lumber is cheaper than brick or stone, and when you find that there is some improvement that you could make to the advantage of the hen and coop, it will be a good deal cheaper remodeling the wooden building.

It is impossible to build a house that will answer for all times of the year. You will find alterations to make in spring and fall, so when wood is used in its construction it can be built in sections and bolted together. In warm weather you can use wire frames in place of the board sections. Give the hens plenty of room, lots of clean straw to be used as scratching material, fight lice nine days a week, and see if the hens don't pay their way.

### Swindlers Prosecuted.

The mayor of New York is vigorously prosecuting swindlers who sell short weight potatoes. The law requires the barrel of potatoes to contain 100 quarts, and to weigh 174 pounds, but most of the barrels in use are short from 20 to 50 pounds.