The Reason.

Dead men tell no tales, which is why so many widows find it easy to marry again.—Smart Set.

Make Your Own Gas.

Acetylene gives a pure white light, in which all articles show in their true colors the same as in the sunlight, and burns in burners consuming about half a foot of gas per hour, each burner giving forth some 20 candle power light. The gas is obtained by adding water to calcium carbide, which is obtained by fusing together ground coke and lime.

The use of gasoline gas has become quite common for small to medium-sized plants. It is a mixture of gasoline vapor and air, the pure vapor being impractical to burn on account of a high pressure being required. While the gasoline is considered somewhat dangerous to handle, neglect and carelessness are a large factor in the matter and common carefulness will render the gasoline safe to handle. There are different grades of gasoline for sale, and that used for gas machines should have a specific gravity of 86 for summer use and 88 for winter.

Many people who live outside the limits of the gas companies' lines do not use gas, says Farm and Home, because they fail to realize how cheaply the acetylene or gasoline machines can be installed and at how small an expense they operate as compared with other forms of lighting and cooking. The experiment once tried, they are surprised to find out that it is just as practical as independent water works or steam or hot water heating. The party who has one of these individual gas plants is entirely independent, running his apparatus when and how he pleases.

The Modern Farmer's Daughter.

Of course, girls on farms can be just as independent as girls in cities—more so, in fact—and healthier and happier in the bargain. They are not limited to shop, factory or office for paying employment. I know of one girl who raises pedigreed dogs, writes one of these girls in Farm and Home. I have heard of others who raise quality cats, canaries, poultry, Shetland ponies—girls who sew, nurse, pickle and preserve, bake, raise garden stuff or small fruits—girls who are satisfactorily employed in making a living, and incidentally fitting themselves to be true helpmates when the right man comes along.

False Economy.

Mrs. Pearl White, of Michigan, writing to Farm and Home, has this to say on the subject of women practicing false economy: "Many a woman will walk half a mile or more to borrow a pattern that is not even the right size, trusting to her ingenuity and good sense to make it fit, but the chances are that the time alone which she could save would more than equal the 10-cent expenditure for a new pattern, besides securing a better fit and style, and considerable saving of nerves."

Plenty of Grandfathers.

Little Helen's father had been looking up his genealogical tree, and frequently spends his leisure evenings poring over papers from the various historical societies relative to the matter. One day while Helen was playing with her little friends, a childish dispute arose as to which was the best looking. Helen, almost in tears, blurted out: "Well, Alice may be the prettiest, and Dorothy has the nicest dresses, but I have sheets of grandfathers at home."

Sickroom Screen.

A screen in the sickroom is almost indispensable, for it is needed to keep light from the patient's eyes, to guard the bed from drafts, or shut out the sight of medicine bottles and so forth. An excellent sanitary screen is made by tacking white oilcloth on to a frame, then painting on in oil a pretty scene, as birds or butterflies. These screens can be washed as often as necessary.

What Shall I Give Her.

If funds are low and a wedding present is a necessity to a friend, make her a "memory" book—or books—covering stiff-backed blank books with white satin or pretty silk. Inside have the titles indexed—books, business, addresses, Christmas lists, garden lists, invitations, new dishes. A companion book can be made and filled with "own" tried recipes from friends.

Useful Life.

Any Christian spirit working kindly in its little sphere, whatever it may be, will find its moral life too short for its vast means of usefulness.—Charles Dickens.

NEAT AFTER-DINNER TRICKS

Really Interesting Scientific Experiment Showing How Compressed Air May Be Used.

An apparently empty bottle may be made to blow out a candle. The trick is really an interesting scientific experiment, showing how compressed air, directly the pressure which confines it is removed, tends to assume the normal density of the atmosphere. We take an ordinary bottle and, seeing that it is empty and dry, we place the ball of the thumb over the mouth with just a small aperture uncovered. Then, placing our mouth to this, we blow steadily and continuously into the bottle.

The result is that the air in the bottle is compressed. When we take our mouth away we insure that no air shall escape by instantly closing the whole aperture with the ball of the thumb which is already pressed over part of the opening.

Now we invert the bottle and, placing the mouth against the flame of a lighted candle, we remove so much of our hand as will make an opening similar to that into which we blew. The result is that the compressed air, directly the pressure is removed, rushes out and blows upon the flame. It is well to use a small candle, as if we have a large candle with a big flame the pressure may not be sufficient to extinguish the flame. If we perform the trick in front of a number of spectators we must not let them see us blow into the bottle. This part of the performance can be done outside the room, and we can bring the bottle in with our thumb over the opening, keeping it there till the moment when we want to release the air. This can be done in such a way as not to attract notice.

Blowing Out Candle.

METALS DEARER THAN GOLD

Iridium, for Instance, Is Three Times as Expensive—Osmium Is Dearer and Heavier.

Gold is generally looked on as the last word in costliness, but, as a matter of fact, there are more metals dearer than gold than there are cheaper. The number of known metals is about seventy.

Iridium, for instance, of which a big find was made the other day in Austria, is three times as expensive as gold. Gold is worth nearly $20 an ounce. Iridium is worth some $62, though the price will probably come down now.

Osmium is another metal much dearer than gold. It costs about $50 an ounce. It is by far the heaviest of all known substances, being more than 22 times as heavy as water. If pennies were made of osmium it would tax one's strength to carry the change of half a dollar. This metal has the peculiar property of being able to stand without melting the most intense heat known.

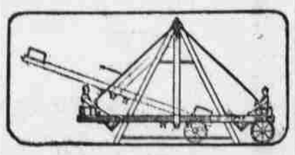
Palladium, about $40 an ounce, is just the reverse. It is quite easy to make palladium vanish in steam. Being of a white, silvery color, and untarnishable, it is used for the division marks on scales and delicate scientific instruments.

VEHICLE SWING IS INVENTED

Mechanical Device Affords Exhilarating Exercise and Considerable Amusement for All.

The Scientific American in describing a vehicle swing, invented by O. Zimmerman of Los Angeles, Cal., says:

The object of the inventor is to provide a mechanical swing arranged to provide an exhilarating exercise and considerable amusement to young and old using the swing, to insure safety in the use of the vehicle swing and to guard against a tendency of producing dizziness of the user. For the purpose named, use is made of a suspended link pivotally supporting at its lower end a supporting frame provided at one end with wheels and seats, the wheels being adapted to travel on the ground, on the floor, or rails or other suitable support.



Vehicle Swing.

ODDITIES OF FEW LANGUAGES

Germans Call Thimble a "Finger Hat" and French Have No Words for Baby or Home.

The following are a few linguistic whimsicalities: The Germans call a thimble a "finger hat," which it certainly is, and a grasshopper a "hay horse." A glove with them is a "hand shoe," showing evidently that they wore shoes before gloves. Poultry is "feather cattle," while the names for the well-known substances oxygen and hydrogen are in their language "sour stuff" and "water stuff." The French, strange to say, have no verb "to stand," nor can a Frenchman speak of "kicking" anyone. The nearest approach a Frenchman makes to it in his politeness is to threaten to "give a blow with his foot"—the same thing in either case, but it seems to want the directness, the energy of our "kick." Neither has he any word for "baby" or for "home" or "comfort." The terms "upstairs" and "downstairs" are also unknown in French. The Hindus are said to have no word for "friend." The Italians have no word for "humility."

UNCLE SAM'S SCHOOL FOR SEAMEN

SCENES AT WASHINGTON NAVY YARD

UNCLE SAM is a schoolmaster of the old type. He neither spares the rod nor spoils the child. He has many pupils, those who enter his service in the government departments and the army and the navy. His course of training in the navy is rather severe, for he requires every man who enlists for service under the Stars and Stripes on sea to become a skilled artisan. Probably the most interesting of all of Uncle Sam's trade schools is the school for seaman gunners, at the navy yard in Washington. It is here that the men who aim and fire the great guns learn their principle and mechanism so thoroughly that the efficiency of the United States navy is unequaled by any navy in the world.

There are more than 125 men in the seaman gunners' class at the present time, enrolled for six months of the hardest kind of study in the shops and in the classroom. Every one of these men is picked, and in the service it is considered a great honor to be chosen to join the class. Only men who have been in the service four years are eligible, and then only when their conduct and service record are exceptionally good. Graduates of the school are the backbone of the navy. Here the men are taught the only really distinctive naval trade, and it is here that the men who load, train and fire the immense guns are made.

Requires Much Study.

They learn the making of the large and small guns. They learn by practical experience how to take them down and assemble them again. The breech mechanism, everything to do with the practical part of ordnance, the manufacture of shells, fuses and powder and torpedoes all require thorough and extensive study. The work is equally divided between the naval gun factory shops and the classroom, where they have instruction at the hands of skilled ordnance experts and special instructors. In addition to the ordnance course they are required to become proficient in the science of metallography and skilled in the manufacture and principle of the storage battery.

Work on the big guns start from the raw casting. This huge, 75-ton cylinder of steel is bored out, trimmed and grooved. The casing, another huge cylinder of steel, is bored out, heated white hot and shrunk onto the grooved lining. The manufacture of this part of the monster 14-inch rifles takes about four weeks.

Then the gunnery force enters the forge and hammer shops, where they remain for two weeks. After this the class is divided into small squads, some of them going into the blacksmith shop, others to the machinists' bench, the carpenter shop, the tinsmith, the coppersmith and the plumber for instruction. Each man must hammer and turn out from raw metal every piece of steel which goes into the complicated breech block mechanism and the firing devices. Projectiles and smokeless powder also get a great deal of attention, this last phase of the work taking the school to Indian Head, Md., for several weeks' work.

When these men graduate and leave Washington for the various ships of the Atlantic fleet to them falls the duty of keeping in repair every portion of the ship's armament. If during battle practice a spring or bit of mechanism breaks, these seaman gunners must enter the ship's machine shop and forge or turn out a new piece.

The gunner is in absolute command of his gun. He has under him an assistant. In the big dreadnaughts of today, there are six turrets, with two guns to each turret. Each turret is supplied with ammunition for two magazines. Also there is a gunner in charge of the magazines. Besides these, there are smaller five-inch rifles, six and one-pounders located on various portions of the ship. To these smaller guns the recently graduated class is always sent. In time they are promoted and placed in charge of a big gun or even a whole turret.

Uncle Sam is exceedingly severe with his students. They must turn out promptly at 6 o'clock in the morning, roll up their hammocks, sweep out their quarters and be washed, shaved and cleanly clothed for breakfast at 7 o'clock. At 8 o'clock they enter the shops of the naval gun factory for their various duties. At 11:30 o'clock the students "knock off" for lunch, but promptly at 1 o'clock they are again in the shops or in the lecture room hard at work.

At 4:30 an hour's drill under arms is held. This takes place on the drill ground of the navy yard and keeps the men for three-quarters of an hour. At 5 o'clock comes the event of the day, dinner.

Dinner to the seaman gunner's class is always something to look forward to. The menu is large and the food, although simple, is the best that money can buy. The class has a caterer who makes it his business to see that the same dishes are not served too often and that the food is of the best quality.

From dinner until 10:30 o'clock the men are at leisure to come and go as they please. They may "go ashore" or visit friends in Washington, or they may remain in quarters and study their lessons for the next day. The men are allowed to use civilian clothes. For the most part, the students restrict their liberties to not more than two nights a week and all day Sunday.

It is so great an honor to be sent to the school and the advancement, after graduating, is so rapid that none of the lucky ones care to risk their chances of being dismissed and returned to the service under their old rank. Then, as many written problems are required, and several oral recitations occur each week, they burn a great deal of midnight oil. A visitor to the navy ward any night except Saturday will find forty or fifty clean-cut young men working out ordnance problems, studying from a dozen text books, and quizzing each other on the questions that the officer-instructor is sure to ask them the next day.

Josephus Daniels, secretary of the navy, is particularly fond of the seaman gunners' class. To his mind, the rushing dreadnought and the crash of mighty guns are not all that go to make up a perfect naval service. He believes that a four-year course in the navy should be equal to a four-year course in the best vocational school in the country. As far as the seaman gunners' class is concerned, they get an excellent vocational training in just six months.

A graduate of this wonderful school can take raw metal and turn out the most complicated steel mechanism; turn sheet copper into symmetrical pipe and ducts; make and charge a storage battery; wire a turret for electricity; make a set of plans for about anything, and make and use smokeless powder.

Ducks an Important Food Supply.

Concerning certain features of Eskimo life along the north coast of Alaska, the account written by Vilhjalmar Stefansson says: "In the spring and summer ducks and geese, especially the former, are an important item of diet. They are pursued in kayaks when molting and killed with clubs, and large numbers of them are also secured by bolas throwing, for the migrant route of the ducks along the coast is so definitely known that a man can stand all day and rely on it that three out of every four ducks will fly within throwing distance. So thickly do the birds come that nowadays a competent man with a shotgun has been known to secure as many as 600 ducks in a day."

Scientific Shoveling.

For a first-class shoveler there is a particular shovel load at which he will do his biggest day's work with no increase of effort on his part. To determine what this load is a series of tests were made at the works of the Bethlehem Steel company. Experienced shovelers, who could be depended on to do trustworthy work, were selected and tests were made with shovel loads varying from five pounds to 40 pounds, with the result that a load of 21 pounds was found to be the one giving the greatest efficiency. With the 21-pound load a shoveler will do as much as 20 per cent. more work than with loads that are a great deal less than this, and with less effort.—Popular Mechanics Magazine.

Plant Grows Under Snow.

The Alpine flower called the soldanella, produces heat sufficient so that it grows even under a considerable covering of snow. If the snow is not too deep the plant sends its stem up through the snow, which is melted by the heat. If the snow is deeper the heat melts a little hollow chamber out about the plant, thus giving it room to expand and blossom. It has been found that some of the plants of the arum family, which are common in the Mediterranean region, develop a temperature of as high as 100 degrees when their buds are opening. To a less degree probably all plants furnish their own heat under certain conditions, but ordinarily vegetation, being by nature adapted to its surroundings, gets the heat it needs from the soil, air and sun. Animals are of a higher order than plants partly because they are more independent of their surroundings.—The Pathfinder.

"A Little Bird Told Me So."

The popular expression, "A little bird told me so," used to convey the idea that by telling you would betray your informant, but is probably adapted from the twentieth verse of the tenth chapter of Ecclesiastes: "Curse not the king, no not in thy thought; and curse not the rich in thy bedchamber; for a bird of the air shall carry thy voice, and that which hath wings shall tell the matter."

Considerate.

My little brother William had been staying up rather late and went to bed without saying his prayers. Mother said to him: "Why, Willie, I'm surprised at you! You haven't said your prayers." "Aw, gee!" he answered; "what's the use of waking the Lord up at this hour of the night?"—Chicago Journal.

Diplomat.

Sne—"Jack, when we are married, I must have three servants." He—"You shall have twenty, dear—but not all at the same time."—Answers.

One Limit He Dare Not Pass.

"As a general proposition, I care little for the plaudits or criticisms of my fellow men," stated Pip Maudlin, the blase young clubman of Skeedee. "While I am not defiant of public opinion, I am to a great extent indifferent to it. But, try as I may, I have never been able to persuade myself that my feet are small enough to permit me to wear white shoes without violating the laws of physical prosody."

Where the "Space" Was.

You know how crowded a second-hand furniture store is, always piled high with odds and ends of household goods. Well, there is such a shop on the South side, in a one-story shack, which the other day posted this sign in the window: "Space For Rent." "I suppose," remarked a man who was passing, "there must be a vacancy under one of the tables."—Kansas City Star.

Editor Willing to Retract.

"Look here, Mr. Editor," exclaimed an irate caller, "you referred to me yesterday as a reformed drunkard. You must apologize, or I'll sue your paper for libel." "Very well, sir," replied the editor. "I'll retract the statement cheerfully. I'll say you haven't reformed."

Ready for Reception.

Annoyed by a notice that the local sanitary committee were going to inspect his cowhouse, a Dorset (England) farmer spread linoleum over the floor of the building, displayed hearthrugs in convenient positions, hung the walls with pictures and a mirror, and installed a harmonium. When the committee arrived he gravely invited them to wipe their feet on the door mat before entering.

Work.

The beauty of work depends upon the way we meet it—whether we arm ourselves each morning to attack it as an enemy that must be vanquished before night comes, or whether we open our eyes with the sunrise to welcome it as an approaching friend who will make us feel at evening that the day was well worth its fatigues. — Lucy Larcom.

"Jarndyce and Jarndyce."

Seven years ago a New York real estate operator left $40,000 to "the cause of charity." Recently the court decided the will valid, but now there is no estate to distribute—the lawyers have it. The purpose of the will has been accomplished. — New York Herald.

Protection Against Bores.

Paley, the theologian, had an ingenious method of warding off the time-waster. When thinking out a problem he betook himself to the river bank with a fishing rod. He never really fished, but he found that people who thought nothing of disturbing his thoughts would keep at a distance so as not to disturb the fish. To give color to the ruse he had his portrait painted with fishing rod in hand.

Literal Obedience.

Two little sisters, just promoted, were comparing teachers. Helen said she did not like her new teacher. "I have to like my teacher," spoke up little Mabel. "It is written on the blackboard: 'Love your enemies'"

Off Color.

The man who lets every little trouble keep him feeling blue must have a streak of yellow. — Chicago Record-Herald.