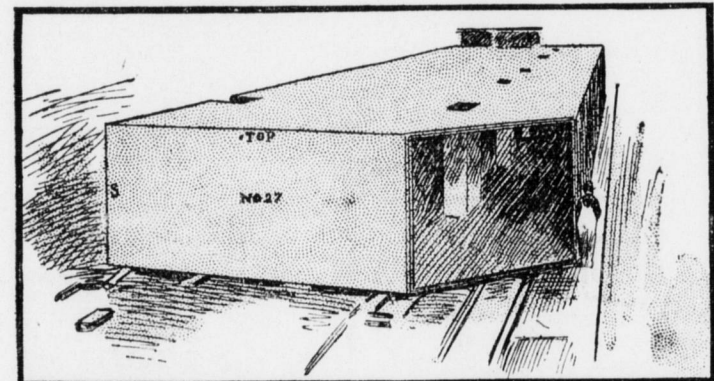


INDUSTRY & MECHANICS

LARGEST STRONG BOX.

One of Two Stories Which Will Defy Any Sort of Violence.

A huge armor-plate storage vault, two stories high and proof against any sort of violence that might be brought to bear against it, has been constructed in Bethlehem, Pa., for use in a New York safe-deposit building. The building of armor-plate vaults, we are told by a writer in Machinery, is comparatively new, having sprung up in the past eight or nine years, and this particular vault is so much larger than anything else of its kind that an uninitiated mechanic would be perplexed

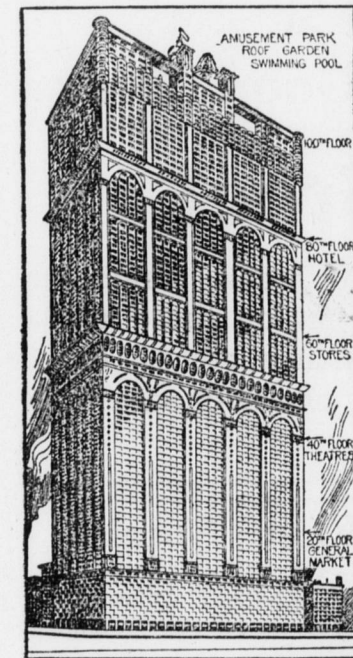


Lower Story of Vault on Erection Floor of Armor-Plate Shop.

to state the use to which it is to be put. The writer goes on to say: "This armor-plate vault is a sort of glorified safe, to be filled with strong boxes. The advantage claimed for the armor-plate vault over all other types of construction is that it is fire, burglar, mob and earthquake proof. This one is built in two stories with a connecting passage between them carrying a stairway and a passenger elevator. The lower story is 9 1/2 feet high, 106 1/2 feet long, and 30 1/2 feet wide. The whole structure weighs about 1,200 tons. It is provided with an 'emergency door' in the right-hand corner of the foreground of the figure. The upper floor is 82 feet long, 9 feet high, and 19 feet wide, provided with two doors for regular service, one at either end. "The upper vault, in particular, is

BUILDING POSSIBILITIES.

Skyscrapers 100 Stories High Possible, But Drawbacks Are Many. Reinforced concrete buildings, 100 stories high, towering 1,000 feet into the air, may yet be seen by people now living, according to a prominent



The 100-Story Possibility.

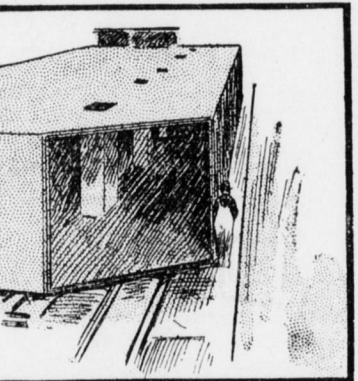
New York engineer and builder. Before such a feat can be accomplished, however, two great obstacles must be overcome. The lack of adequate fire protection at such a height is one, and the other is the impossibility of providing elevator service under the present systems. Even now in 30-story buildings the weight of the cables supporting the cars is enormous, and buildings of over 40 stories would pass the safety line in this respect.

"The 100-story building is sure to come," says one New York architect. "We may not be ready for it yet, but the larger and higher buildings we are certain to have in the near future. The next stage in the development will be the 50 and 75-story building constructed of steel and concrete."

Already the 40-story building has been reached and passed in the completion of the Singer building. The 50-story goal is practically here with the construction of the Metropolitan Life building, which, when completed, will be 48 stories high. Less than a dozen years ago a 20-story building was a world wonder. Now it is insignificant. The census of skyscrapers in New York, not taking into account the Singer building, gives a total number of 22 buildings more than 20 stories in height, and 405 buildings ranging from 10 to 20 stories high.

to be equipped on a scale of magnificence exceeding anything of the kind previously installed. The whole room is to be finished in solid bronze, with all the fittings of the same material. * * * The vault is so large that it overflows the unobstructed floor of the sub-basement, and includes two rows of the columns of the building within its area. To take care of these, several openings, entirely cased in, are made through the vault from top to bottom.

"Besides being remarkable in its general features, this vault is unusually interesting in its design and construction. As stated, it is intended to be fire, burglar, mob, and earthquake proof. Danger from fire is obviated by the heavy 16-inch coating of concrete and fire-proofing material which surrounds the top, bottom and sides. The burglar's chances for success are small, as the walls of the vault are made of four-inch Harveyized steel armor-plate, of the same kind as furnished the government for

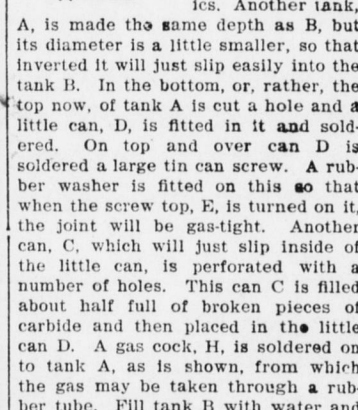


war vessels. Not only would the burglar have to perform the task of getting through this case-hardened surface, but to even reach the armor-plate he would have the re-enforced concrete to reckon with. The vault is made of separate steel plates, with numerous joints; but these are all dovetailed together and held in such a way as to make their separation impossible from the outside, and the fitting is so finely done that the joints are impervious to nitroglycerin. "Barring those for the doors, the armor-plate walls are free from openings of any kind, which a burglar might use in beginning his vault-breaking operation. There are no holes through the doors for the locking mechanism. The automatic time lock is the sole means of opening the vault once it has been locked."

ACETYLENE GAS GENERATOR.

How You Can Make One Yourself for Use at Home.

A simple acetylene gas generator used by myself for several years when out on camping trips was made of a galvanized iron tank, without a head, eight inches in diameter and 30 inches deep. B, as shown in the sketch, writes a correspondent of Popular Mechanics. Another tank, A, is made the same depth as B, but its diameter is a little smaller, so that inverted it will just slip easily into the tank B. In the bottom, or, rather, the top now, of tank A is cut a hole and a little can, D, is fitted in it and soldered. On top and over can D is soldered a large tin can screw. A rubber washer is fitted on this so that when the screw top, E, is turned on it, the joint will be gas-tight. Another can, C, which will just slip inside of the little can, is perforated with a number of holes. This can C is filled about half full of broken pieces of carbide and then placed in the little can D. A gas cock, H, is soldered on to tank A, as is shown, from which the gas may be taken through a rubber tube. Fill tank B with water and set tank A into it. This will cause some air to be inclosed, which can be released by leaving the cock open until tank A settles down to the point where the water will begin to run in the perforations of the little tank. The water then comes in contact with the carbide and forms gas, which expands and stops the lowering of tank A. Then the cock must be closed and tubing attached. It is dangerous to attempt to strike a match to light a jet or the end of the cock while air is escaping and just as the first gas is being made. Wait until the tank is well raised up before doing this.



Sectional View of Apparatus.

Peat as Fuel. Effort in This Country to Make Its Use Practical Unsuccessful. Peat, which might almost be called the national fuel of Ireland, has never been very successfully exploited in the United States. While peat can be converted into a fair quality of fuel for both domestic and steam purposes, all methods of handling it so far devised require heavy machinery and considerable hand labor, and both of these are expensive. Several experimental plants have been started to test the feasibility of manufacturing peat fuel, but they have not commenced work on a commercial scale. It is estimated that from 500 to 1,500 tons were produced in 1906. During the year there were imported into the United States 8,557 short tons of peat, valued at \$45,344.

Peat as Fuel. Effort in This Country to Make Its Use Practical Unsuccessful.

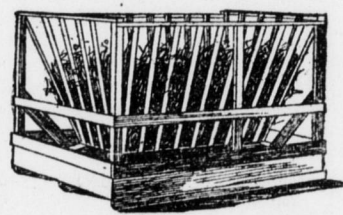
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THE DAIRY

CONVENIENT FEED RACK.

One Which Will Prevent Waste of the Coarse Feed.

A substantial feed rack is a good investment on any farm where a considerable amount of stock is kept. By using a rack of this kind much coarse feed can be utilized that would otherwise be wasted and at the same time this coarse feed is made to go as far as possible. We illustrate herewith a rack we have found serviceable, says The Farmer. This rack will cost in the neighborhood of \$18. The stock always spends a considerable share of the winter days in the yards, even the dairy cows, and racks of this kind give an opportunity for the stock to eat their roughage while they are getting



Construction of Feed Rack.

their exercise. Where the straw and waste hay and fodder was formerly strewed around the yard and tramped in the mud there is now no such waste. The yards can be kept clean and all the roughage used. The racks are also helpful to a certain extent as protection from the weather.

The illustration gives a very fair idea of the construction of the racks. They are 16 feet long, eight feet wide and eight feet high. They are mounted on three 2x8 skids and can be drawn to different parts of the yard. The framework is built around six upright 4x4s braced with 2x4s around the top. The slats in the rack are made of fencing. The rack is floored with inch stuff and sided up with 1x12 boards over which is a 2x8 board to add strength where the cattle lean over the rack. A 2x6 32 inches above the 2x8 and around the rack prevents crowding and adds strength to the rack. A rack of this kind calls for the following bill of material:

Twenty-two pieces of fencing 10 feet; 3 4x4s, 16 feet high; 7 2x4s, 16 feet high; 9 boards 1x12x16; 3 2x6s, 16 feet long; 5 2x4s, 16 feet long; 128 feet flooring; 6 2x8s, 16 feet.

KIND OF COWS TO KEEP.

Raise Them Yourself and Be Sure of Their Milk-Giving Capacity.

It is not sufficient to have a certain number of cows. They should be adapted to the work—dairy cows, not beef animals, that can only produce sufficient milk to raise a veal calf. Such cows are not the most profitable ones to keep. Aim to raise your own cows, then through selection and breeding the producing capacity of your herd can be increased. If you do not feel equal to the expense, cooperate with your neighbor and purchase a good dairy sire. The influence of a good sire towards improving the quality of stock, especially where grades are kept, is very marked.

Lay your plans for a silo at just as early a date as possible. The silo has come to be recognized as one of the most important buildings on the dairy farm.

Care should be taken not to feed cows food capable of imparting objectionable odors or flavors to cream. Turnips and other strong-flavored foods can only be fed immediately after milking, but it is better not to feed such foods to dairy cows. It is not necessary and it is too risky.

HORTICULTURAL NOTES.

We caution readers to go slow in these "home mixed" oils for spraying. It is not a mere matter of putting caustic and oil together.

Score still another for the apple. Weston, the old pedestrian, who tramped to Chicago, eats his baked apple every morning.

Suppose some of you gray-haired men 40 years ago had planted some of your waste land in pine or hemlock? It would certainly be paying your board now.

An English magistrate recently imposed sentence on a school boy who had damaged a tree belonging to the Ealing corporation. He ordered the boy provide another tree, and plant it himself. This seems a thoroughly practical way to make the punishment fit the crime.

Mulching is an important point in the production of choice berries. Spread buckwheat straw on old meadow and plow under in fall for potatoes.

Butter Making. In churning at a low temperature the churn should be stopped when the butter is in granules about the size of rice or grains of wheat. Draw off the buttermilk and wash the butter in good, pure water. Salt the butter at the rate of three-quarters ounce of salt to the pound, or slightly more, as the market may demand. Then work and pack into packages ready for delivery.

VIRGINIA MERCHANT RID OF A VERY BIG GRAVEL STONE.

Another Remarkable Cure of Serious Kidney Trouble.

C. L. Wood, a prominent merchant of Fentress, Norfolk Co., Va., was suffering some months ago with frequent attacks of hard pain in the back, kidneys and bladder and the kidney secretions were irregularly scanty or profuse. Medical treatment failed to cure him.

"At last," says Mr. Wood, "I began using Doan's Kidney Pills, and before one box was gone, I went through four days of intense pain, finally passing a stone, one-half by five-sixteenths of an inch in diameter. I haven't had a sign of kidney trouble since."

Sold by all dealers, 50 cents a box. Foster-Milburn Co., Buffalo, N. Y.

THEN IT LOOKED ABOUT RIGHT.

Coal Dealer Understood When Told What Load Represented.

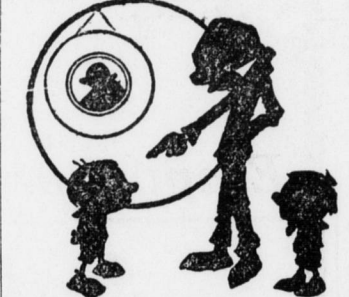
John D. Rockefeller, Jr., in one of the last addresses that he made to his Sunday school class before abandoning it, said of carefulness in business: "Too many business men are careful on one side, their own side, only. Thus a coal dealer whom I used to know shouted one afternoon to an employee who was driving out of the yard: 'Hold on there, Jim! That coal can't have been weighed. It looks a trifle large for a ton to me.' 'Jim shouted back: 'This ain't a ton, boss. It's two tons.' 'Oh, all right,' said the dealer, in a modified tone. 'Beg your pardon; go ahead.'"

DOCTOR SAID "USE CUTICURA"

In Bad Case of Eczema on Child—Disease Had Reached a Fearful State—His Order Resulted in Complete Cure.

"When I was small I was troubled with eczema for about three months. It was all over my face and covered nearly all of my head. It reached such a state that it was just a large scab all over, and the pain and itching were terrible. I doctored with an able physician for some time and was then advised by him to use the Cuticura Remedies which I did and I was entirely cured. I have not been bothered with it since. I used Cuticura Soap and Cuticura Ointment but do not know exactly how much was used to complete the cure. I can safely say that Cuticura did a lot for me. Miss Anabel Wilson, North Branch, Mich., Oct. 20, 1907."

HE KNEW.



Father—Yes, you're a regular little pig! Would'n't give your brother any of that candy. Do you know what a little pig is? Kid—Er—er—sure—er—pig is—er—hog's little boy.

Why Sloan's Liniment and Veterinary Remedies Are the Best to Use.

Let me tell you why Sloan's Liniment and Veterinary Remedies are the safest and most practical on the market to-day. In the first place, Dr. Earl S. Sloan is the son of a veterinary surgeon, and from his earliest infancy he was associated with horses. He bought and sold horses while yet very young. He practiced as a veterinary for 20 years and has battled successfully with every disease to which that animal is subject.

All his remedies are the result of experiments made to save life or relieve suffering while he was practicing his profession. Any reader, by writing to Dr. Earl S. Sloan, 615 Albany Street, Boston, Mass., will receive "Sloan's Treatise on the Horse," free. This book tells how to treat horses, cattle, hogs, and poultry.

Crusher for Papa.

"Chalmont, you don't know your geography lesson at all to-night," said Gunson, Sr. "When I was your age I could answer practically every question in the book."

"Well, pa," retorted Gunson, Jr., "I guess you had some intelligent person to help you with your home work."

The Pe-ru-na Almanac in 8,000,000 Homes.

The Peruna Lucky Day Almanac has become a fixture in over eight million homes. It can be obtained from all druggists free. Be sure to inquire early. The 1908 Almanac is already published, and the supply will soon be exhausted. Do not put it off. Speak for one to-day.

Quite So.

Nimrod—Are you fond of hunting? Gyer—It all depends. Nimrod—Depends on what? Gyer—Foxes or collar studs.—Illustrated Bits.

FILES CURED IN 6 TO 14 DAYS. FAZO OINTMENT is guaranteed to cure any case of itching, blind, bleeding or protruding Files in 6 to 14 days or money refunded. 50c.

Only a stupid woman doesn't know when to act stupid.

ART LONG, CREDIT SHORT.



"What does your brother do for a living?" "He's an artist." "I know, so am I. But what does he do for a living?"

Deafness Cannot Be Cured

by local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When this tube is inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed, deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by Catarrh, which is nothing but an inflamed condition of the mucous surfaces. We will give One Hundred Dollars for any case of Deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure. Sent for circulars, free. F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c.

But Not the Same.

Mushley—Indeed, yes, he's very tender-hearted. I really believe if a beggar approached him and he had no money about him he'd actually take off his coat and give it to him. Crabbe—Well, I'm not tender-hearted, but some of these nifty beggars make me feel like taking off my coat and giving it to them—good and proper.

Important to Mothers.

Examine carefully every bottle of CASTORIA a safe and sure remedy for infants and children, and see that it bears the Signature of *Wm. H. Chase* In Use For Over 30 Years. The Kind You Have Always Bought.

The Other Side.

Landlady—Are you so particular about having a quiet room because you sleep in the daytime? De Toot—No, ma'am. I practice on the flute several hours a day, and any other sound jars on my sensitive soul.—Harper's Weekly.

FITS, St. Vitus Dance and all Nervous Diseases permanently cured by Dr. Kline's Great Nerve Restorer. Send for Free \$2.00 trial bottle and treatise. Dr. R. H. Kline, Ltd., 931 Arch St., Philadelphia, Pa.

Great beauty and great virtue are always inaccessible except to those who strive, who learn to accept, understand and enjoy them.—Sterne.

That Dry Hacking Cough needs attention. Ask your druggist for Brown's Bronchial Troches which will quickly relieve the cough.

So may heaven's grace clear away the foam from thy conscience, that the river of thy thoughts may roll limpid thenceforth.—Dante.

Drink Garfield Tea at night! It insures a normal action of liver, kidneys, stomach and bowels, and overcomes constipation.

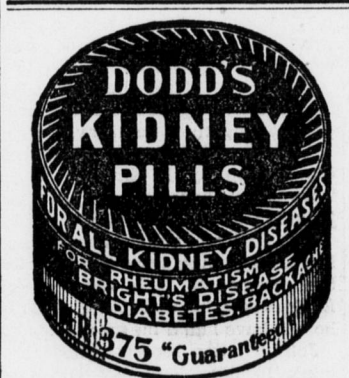
Sometimes the man who was born a fool gets bravely over it.

ONLY ONE "BROMO QUININE" That is LAXATIVE BROMO QUININE. Look for the signature of E. W. GROVE. Used the World over to Cure a Cold in One Day. 25c.

Too many people feather their nests with borrowed plumes.

Mrs. Winslow's Soothing Syrup. For children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. 25c a bottle.

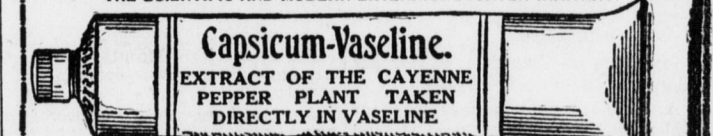
Political conventions seldom go unboomed.



PATENTS

Walter E. Coleman, Patent Attorney, Washington, D. C. Advice free. Terms low. Highest ref.

NO MORE MUSTARD PLASTERS TO BLISTER



DON'T WAIT TILL THE PAIN COMES—KEEP A TUBE HANDY

A QUICK, SURE, SAFE AND ALWAYS READY CURE FOR PAIN—PRICE 15c. —IN COLLAPSIBLE TUBES MADE OF PURE TIN—AT ALL DRUGGISTS AND DEALERS, OR BY MAIL ON RECEIPT OF 15c. IN POSTAGE STAMPS. A substitute for any other plaster, and will not blister the most delicate skin. The pain-allaying and curative qualities of the article are wonderful. It will stop the toothache at once, and relieve Headache and Sciatica. We recommend it as the best and safest external counter-irritant known, also as an external remedy for pains in the chest and stomach and all Rheumatic, Neuralgic and Gouty complaints. A trial will prove what we claim for it, and it will be found to be invaluable in the household and for children. Once used no family will be without it. Many people say "it is the best of all your preparations." Accept no preparation of Vaseline unless the same carries our label, as otherwise it is not genuine. Send your address and we will mail our Vaseline Booklet describing our preparations which will interest you. 17 State St. CHESEBROUGH MFG. CO. New York City

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of the happy homes of to-day is a vast fund of information as to the best methods of promoting health and happiness and right living and knowledge of the world's best products.

Products of actual excellence and reasonable claims truthfully presented and which have attained to world-wide acceptance through the approval of the Well-Informed of the World; not of individuals only, but of the many who have the happy faculty of selecting and obtaining the best the world affords.

One of the products of that class, of known component parts, an Ethical remedy, approved by physicians and commended by the Well-Informed of the World as a valuable and wholesome family laxative is the well-known Syrup of Figs and Elixir of Senna. To get its beneficial effects always buy the genuine, manufactured by the California Fig Syrup Co., only, and for sale by all leading druggists.

SICK HEADACHE

Positively cured by these Little Pills. They also relieve Distress from Dyspepsia, Indigestion and Too Hearty Eating. A perfect remedy for Dizziness, Nausea, Headache, and Bad Taste in the Mouth, Coated Tongue, Pain in the Side, TORPID LIVER. They regulate the Bowels. Purely Vegetable. SMALL PILL. SMALL DOSE. SMALL PRICE.

CARTER'S LITTLE LIVER PILLS. Genuine Must Bear Fac-Simile Signature. Refuse Substitutes.

LIVE STOCK AND MISCELLANEOUS Electrotypes. IN GREAT VARIETY FOR SALE AT THE LOWEST PRICES BY A. N. KELLOGG NEWSPAPER CO. 73 W. Adams St., Chicago.

Delicious CHOCOLATE PIE YOU SHOULD TRY THIS RECIPE: 1 Quart Milk 1 Package OUR-PIE Follow Directions on Package Each Package Makes 2 Pies 10 3 Kinds Lemon, Chocolate, Custard. Order From Any Grocer. Nearly every grocer in the United States now has "OUR-PIE" Preparation in stock. If your dealer cannot supply you send his name and 10 cents to D-Zerta Co., Rochester, N. Y., and receive by return mail a full size package free.

HICK'S CAPUDINE CURES It removes the cause, soothes the nerves and relieves the action and feverishness. It cures all headaches and neuralgia also. No bad effects. 10c, 25c and 50c bottles. (LJOUR)

READERS of this paper desiring to buy anything advertised in its columns should insist upon having what they ask for, refusing all substitutes or imitations.

PARKER'S HAIR BALSAM Cleanses and beautifies the hair. Promotes a luxuriant growth. Never Fails to Restore Gray Hair to its Youthful Color. Cures scalp diseases. Hair falling out. 50c and \$1.00 at Druggists.

YOUR HIDE TANNED HORSE HIDES make fine, warm robes. We are the oldest house doing this kind of work. Ask responsible and know how. Write for prices. THE WORTHING & ALGER CO., Hillsdale, Mich.

FOR SALE AT A BARGAIN Best 200 acre farm in Southern Mich. High state cultivation; three bank barns; large, fine farm house; peach trees; fine young apple orchard. Farm produced \$200 to \$300 farm products annually for 20 years. Write immediately. M. H. LANE, Kalamazoo, Mich.

Furnaces \$15 Before shipment. Balance after inspection and approval. Book Iron, Century Furnace Co., Box K, Youngstown, Ohio.

If afflicted with Thompson's Eye Water 50c a bottle, 10c.

100% FIRST FARM MORTGAGE, sold by First Bank, Vandervoort, Ind.

160 ACRES well improved. Owner owned 43 years. Sickness. G. W. CUPP, Mansfield, Ohio.

A. N. K.—C (1908—2) 2212.