

EASY TO MAKE DRAIN TILES

Work is Simple and Outfit Costs but \$60 or Less—Cement is as Good as Clay.

Make your own drain tiles. The work is simple and can be done in the spring or on rainy days. Cement tiles are fully as good as the clay, if they are made right.

The outfit needed to make these tiles consists of a machine in which the molds are placed when filled, and the molds. It can be bought for \$35 to \$60. The machine can be run by hand or by engine. If turned by hand, about 600 tiles a day are made, but with an engine this can be increased to 1,200.

After filling the molds with flexible casing put it into the machine. Then take enough cement for a tile and pack it firmly against the casing by turning the packer through it. The mold is then opened and the tile, still supported by the casing, is taken out. After the cement has become quite hard the casing can be taken off and used again.

Cement tiles become harder and stronger with age, while the clay tile weakens. Cement ones have the advantage also of not being drawn out of shape by burning.

The proportion of sand and cement to use is about three to one. The sand used should be clean and as angular as it is possible to get. Crushed rock cannot be used to any advantage in the smaller tiles. Slow-setting cement is stronger than the quick-setting variety.

The size of tiles depends upon the amount of water to be carried. For most places the lateral drains should be of three or four-inch tiles. Eight-sided tiles are laid much easier than round ones, and cost little more.

RIGHT WAY TO STACK GRAIN

When Five or Six Feet High Reverse Order and Work From Center to Outside.

(By W. H. UNDERWOOD.)

To stack wheat or other bundle grain so the stack will not take water commence the stack or rick any way desired, but when the stack is built to a height of five or six feet just reverse the usual way of stacking and work from the center to the outside instead of from the outside to the center.

When beginning at the center to work out lay down two or three bundles so as to keep the center the highest with a good slant to the outer edge.

If at any time the outer edge gets too high, stop before getting there and go back to the center and come out again.

Keep the center high and the outer edge low. This is about the same as one shock on top of another, only a little more slant to the bundles.

There is no slip nor slide. It is an easy and fast way to stack and will surely keep the stack dry. It is not quite as good as a barn, but it is right next to it. It does not require an expert. Almost any fourteen-year-old boy can stack this way.

It is not so easy to make a mistake as in the usual way, but if stacking in the usual way and the stack should commence to slip or slide, just go to the center and work out and see how quickly it can be stopped, or fill the middle of the stack from the ground up to the top and see how easy it is to keep the middle solid.

Mix up the stacking a little and work from the center part of the time and you will soon find out the best way to stack.

Buy a Separator.

There are many things to be said in favor of the separator; so many in fact that a mere mention of them all would require much time and space. Here are a few:

No cream left in the skim milk. Saves two or three handlings of the milk.

The pigs and calves get sweet warm skim milk at its highest feed value.

Butter keeps sweeter and firmer in warm weather when made of separator cream.

It saves time, room, labor, water, ice, pans and cans without number, also hauling and freight charges.

With five or more cows a hand cream separator will pay for itself the first year of its use.

Eggs for Hatching.

The seller and buyer of eggs for hatching are equally interested in one thing—the quality of the eggs. In other words, the eggs should be (1) produced by first-class stock, properly mated; (2) each egg should be fertilized; (3) the chicken hatched from eggs should be vigorous and livable.

Early Plowing.

Plow early. Do not allow the furrows to become so dry that extra work is required in pulverizing them. It is more economical and satisfactory to use a harrow as soon as the furrows are dry enough. Conserve soil moisture if you desire to grow the best crops.

Princess Watermelon.

The Princess is the name of one of the newest varieties of watermelons. These melons are just right in size to be served whole to one person, just as cantaloupes are.

Fruit Under Glass.

Strawberries, tomatoes and cucumbers grown under glass will need to be hand-pollinated to insure a good crop.

WHY HUSBANDS LEAVE HOME



WHY do husbands flee from the family hearthstone? What motives impel the wholesale desertion of homes annually? Thousands of wives and children are deserted every year in the principal American cities. It is one of the most serious sociological problems confronting the country's workers in the cause of charities and correction and the metropolitan police authorities.

The deserting husband and father has attained the dignity of a civic problem. He is looming up so large as an item of municipal expense that special laws are being passed to punish his offenses, special officers are being appointed to track him down and special courts are being established to try his case.

In New York city alone an average of 40 desertions a day are brought to the attention of the city officials. The number of cases in which the deserted families are cared for by relatives or charitable societies is beyond reckoning. Cincinnati is said to lead western cities in the number of desertions, but Chicago, St. Louis, Philadelphia, Boston, cities large and cities small, cities north and cities south, have finally discovered that the deserted family must have the aid not of church and charity workers but of the law.

New York city deals with this problem in what is known as the domestic relations court, whose blunt slogan is "bring 'em together," and the number of divorces prevented in the dingy court room is known only to the recording angel.

"The general cussedness of the men, the incompetency of the women, the 'other' man or woman coming between husband and wife"—in this order do the causes of desertion run, according to officials of the court. Only the husband vows it's all due to the increased cost of living.

"The high cost of living" echoes the magistrate thoughtfully, in response to a question. "I don't know—I don't know! Of course money is what we're after for these deserted wives and children, but there are other problems to solve here. The husband may start out in married life meaning well, but he marries a girl who knows nothing about homemaking, and that is the first cause of their quarrels. Or she wants more clothes than he can buy for her—and good times. These moving picture houses have a curious fascination for married women. They admit sitting in a moving picture house hour after hour when they ought to be getting meals for their families. The moving picture show has taken the place of the cheap novel with this class of women.

"And then the girl who has earned her own living often has trouble with her husband. She is used to spending her money as she likes, and she wants to spend his the same way. Often he does not earn double what she did, and she misses her income. A man ought to consider the earning capacity of a woman before he marries her. The very fact that she has earned so much before marriage may make for their unhappiness. Or she may return to the store or factory rather than live on his wages. Women of this class are no longer economically dependent upon men.

"In both of these cases there is hope of reconciliation. But when another woman has come between husband and wife we don't try to bring the couple together. Then it's simply a case of forcing the man to support his family, whether he will live with them or not."

William Desmond, for a score of years chief of the St. Louis detective bureau, while in official position had constant occasion to study this problem seriously. In answer to a general inquiry of the subject, Mr. Desmond declared that most husbands ran away because of inability to "keep up with the procession" in the

social race of these twentieth century days. He characterized society as a mighty and merciless automobile, which rode down, without warning, all who happened in its path.

"It is the swift pace that kills," said the veteran ex-chief. "That is, the swift pace, the desire to make as good a show as one's neighbors, or perhaps, a better one, causes the majority of the home desertions. And the greater number are not, as most people believe, among the very poor, but rather the so-called middle class of society."

"Among the many who look up from the ranks of the third estate there are few who suspect that the people of the middle class ever lack comforts or even want for the necessities of life. Yet it is a fact, that in the big American cities there are hundreds upon hundreds of husbands who are commonly supposed to be well to do, but who often scarcely know how or where the means of the family exist for the next month will come



Expense Bills One Cause.

from. It is at such times that the men forsake home, abandon wife and children, and flee away—to suicide or exile.

"There is a generally accepted belief that husbands desert wives solely because of domestic discord or because the love of the husband has waned. It can be said in contradiction of this that while desertions do often result from such cause, the number is insignificant compared with the desertions impelled by inability of the husbands to support their families in the style they believe to be absolutely imperative by reason of their social status.

"Comparatively few men," Mr. Desmond declared, "deliberately desert their wives with the intention of never being reunited; few plan to remain away forever. Most husbands, who flee from city homes recover their mental equilibrium and wake to a consciousness of their position when they bring up amid new surroundings. Then hope revives. Then courage returns. They look around with a view to getting a new start. They plan to rebuild their fortunes. All this with the ultimate object of returning to the old home and loved ones or bringing their families to them in a new home. But with many the 'castle in Spain' plans go awry; things refuse to work out right. These hapless deserters—domestic derelicts—move from one place to another. Their habits of home life are broken. They become living, indisputable proof of the old adage that the way to destruction is paved with good intentions. They continue to drift. Perhaps they become sick and die—anyway, they seldom 'come back,' they take the count and are 'out,' and in the great roll of humanity they are recorded as heartless wife deserters."

MELTS STEEL AWAY

Marvelous Power of New Oxy-acetelene Blow-Pipe.

Cuts as Cleanly as a Saw and Goes More Quickly Through Inch Steel Than Saw Would Through Wood.

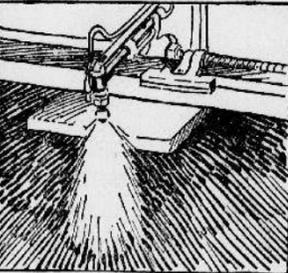
Chicago.—Every day a practical demonstration is being given on the streets of a new device before the marvelous power of which steel becomes like paper.

The oxyacetelene blow-pipe is the device. It is being used to cut out the big steel pillars of the elevated loop which are being removed to make room for through route surface cars to turn street corners. The process also is being used in cutting out old steel piles which interfere with the work on the new La Salle street tunnel.

Thousands of Chicagoans have watched with amazement the action of the tiny blue flame of the blow-pipe upon the massive steel of the elevated pillars. Before it the steel melts away, vanishes in gas. It cuts as cleanly as a saw, and goes more quickly through inch-thick steel than a saw would through soft wood. Inquiry proved that the marvels of the oxyacetelene blow-pipe have been known to scientists for a very few years; and commercially they are just becoming known.

So far as is known, the device has never been used for criminal purposes. But experiments have proved that the flame will cut through the strongest safe as easily as through the elevated pillars. Before it the most cunningly devised vault walls become like paper. Manganese steel, upon which the hardest drills have no effect, is pierced with ease by the oxyacetelene flame.

Just why steel melts before the flame scientists do not know. The flame is produced by combining pure oxygen with acetelene gas. The acet-



Ten Inch Cut Through Steel Two Inches Thick Made in 15 Seconds.

elene gas is first lighted, then the oxygen is turned on. The resulting flame produced at a point about an inch from the blow-pipe is a temperature of 6,300 degrees Fahrenheit. The temperature of the sun, 91,000,000 miles away, is 10,000 degrees Fahrenheit. It is apparent that the blow-pipe flame will melt any metal in short order; but it does more than melt it. It burns it up.

With its assistance the criminal not only could break into any safe; he could break out of any jail. Steel bars never have been forged which will withstand it. An up-to-date murderer could destroy his victim's body in ten minutes. He could transform the corpse direct into a handful of ashes, and scatter them on the sidewalk. He would have to be careful in doing it, because, for instance, if he put the body in a bathtub to burn he might burn a hole through the bathtub. All these sinister uses of the marvelous blow-pipe, however, are imaginary. They have never been attempted, so far as is recorded.

But the beneficial uses of the blow-pipe are becoming the wonder of the industrial world. With it diamonds, rubies and sapphires are manufactured. Scientific rubies, which are better than the natural product and can be produced for the cost of paste gems, are now made in Paris, and a plant is to be opened in New York for their manufacture.

A ruby which if mined would sell for \$3,000 can be made for a few dollars and is sold for \$75. The color of the manufactured rubies is better than the natural kind.

Sapphires are more difficult to produce, but are successfully handled. The diamonds made by subjecting carbon to the intense heat of the blow-pipe are not so hard as nature's diamonds, but are more brilliant. In making diamonds it is not the oxyacetelene process, but the oxyhydrate that is used. The difference is that hydrogen is substituted for the acetelene, because of the chemical effect which the latter has. The temperature produced is not quite so great as with the acetelene, but gets better results in making gems.

Spurns Women Wearing Feathers.

Albany, N. Y.—For fifteen years Mrs. Ralph Waldo Trine, authoress, has refused to speak to women friends and acquaintances who wore the fur of harmless wild animals or the feathers of forest birds. Mr. Trine so informed the legislative forestry, fisheries and game committee at the hearing on the bill to permit the trade in egrettes.

Mrs. Trine urged the legal protection of the bird from which egrettes are obtained, insisting that milliners could easily invent something to take the place of egrettes and other feathers.

MOST EXPENSIVE CITY in the World



THE CAPITOL AT BUENOS AIRES



AVENIDA DE MAYO

RESIDENTS of New York are under the impression that they live in the most expensive city in the world. They even take a kind of pride in the fact—except at the first of the month when the bills come in—and look with something akin to pity on people who are able to exist without spending so much money. But New York must take a back seat in the matter of expense with Buenos Ayres.

No doubt there are costlier places in the world—mining camps, boom towns and the like. But for settled regions and established conditions, Buenos Ayres prices seem to those elsewhere like the Metropolitan tower to a bird cage. If anybody knows of a more expensive place he is advised to keep the knowledge to himself lest some foolish New Yorker undertake a visit and never be able to count out his money fast enough to buy a ticket back.

When you arrive in the capital of the Argentine you are told that you must regard the paper peso just as you would a quarter at home. This is all very well until you go to the bank for a supply of pesos, when you find that they cost you almost fifty cents apiece. After that you begin to study the situation, and come to the reluctant but inevitable conclusion that you must adapt your finances to a scale of living from half as much again to twice as much as that in New York.

Not everything, of course, is higher or even so high, as at home. Food averages about the same, clothing is not a great deal dearer, carriage hire is less, and jewelry, which comes in from France under an insignificant customs duty, seems like finding money. But one cannot spend all his time riding in carriages or buying jewelry because they are relatively inexpensive. Rents are staggering, laundry is exorbitant, service of most sorts is high and fuel is beyond the dreams of avarice.

Rents are probably at the bottom of most of the other high prices. They are more than double what they are on the island of Manhattan. This, too, without apparent reason. Buenos Ayres is located on the edge of an endless plain, with ample room to spread out in three directions, and land does not nearly approach in cost that of New York. For property on the Avenida de Mayo, the principal street, 1,200 pesos a square meter would be regarded as a high price. This works out at about \$50 a square foot. A plot at Broadway and Wall street was sold a few years ago at twelve times that figure.

The only tenable excuse advanced for high rents in Buenos Ayres is cost of building. Cement has to be imported from Europe, and pine for interior woodwork from the United States. Undoubtedly construction is expensive, but not enough so to account for rents. The deeper reason seems to be that for several years Argentina has been going through a period of rapid commercial expansion, with enormous advances in the value of agriculture and—to a lesser degree—of city lands. Property owners have therefore come to expect and demand unusual profits. If landlords told the truth about high rents, it could be put in a nutshell. "We need the money," would be the answer.

Argentina's business is raising food for Europe, but in Buenos Ayres the prices even of the country's own products are kept up to a standard substantially equivalent to that in New

York city. Argentina is the greatest exporter of meat in the world, but North Americans living in Buenos Ayres seem to think that it costs them as much at retail as in the United States. It is hard to make exact comparisons, because the method of cutting is different, and it is common to buy not by weight, but by the piece. Bread costs as much as in the United States and twice as much as in England, although it is from Argentina that England buys a third of her total supply of wheat and more than half of her corn.

When one hears of Buenos Ayres prices he naturally asks, "Are salaries and wages in comparison?" Salaries are—wages are not. That is, using the words in their usual sense, salaries meaning payments to men who wear collars at their work and wages the returns of those who labor in overalls. There are only two classes in Buenos Ayres—upper and lower. The self-respecting middle class—the backbone of the United States—does not exist. Persons who would constitute such a body in one of our communities expend their efforts in Buenos Ayres hanging on by the eyelids to the upper fringe, or else give up the struggle and sink down into the submerged other half.

That the business and professional classes of Buenos Ayres have money to spend, and occupy themselves in spending it, one has every evidence. "Ten years ago in Paris," a Frenchman remarked to me, "when we spoke of wealthy people it was of the North Americans, the English and the Russians. Now we include the Argentines."

There is no other nation in the world with a population of 6,000,000 persons which is supporting a metropolis of one and a quarter million inhabitants, and perhaps nowhere else in the world in so small a compass are there so many stores filled with costly merchandise as on the Calle Florida for the six squares from Rivadavia to Tucuman.

Buenos Ayres is a study in froth. It is the apotheosis of get-rich-quick success—the rapidly matured fruit of a period of unprecedented commercial development, accompanied by soaring land values. It is as far removed from the serene Spanish city which some picture it as the Rio de la Plata from the Tagua. There is little Spanish about it except the language. Italy has supplied the most numerous element in the population, England the capital and France the architecture. The business section of Buenos Ayres is more crowded, almost as noisy, equally torn up and just as much pervaded with nervous, furtive haste as that of New York. Racially the Argentine capital is a Latin city, but in the mingling of peoples and the rush to get rich Italian, Spaniard and Frenchman seem to have forgotten, or been afraid to assert, those national characteristics which make them most interesting at home. Nor have they evolved anything as a whole to take the place. Buenos Ayres is still too young, too driven by a strident, insistent commercialism to have achieved an individuality or an atmosphere.

The dominant commercial spirit is sometimes trying even to one who has been brought up in our cities. In seeking to explain or laud their home to the stranger, the Bonaerenses always dwell on the money side. Prosperity with a big P is the burden of their remarks.

ARTHUR H. WARNER.