

My Wife and I



Believe that one of prevention is worth a pound of cure. We had full heavy headaches, a little exertion tired us greatly, and my appetite was very poor. So we began to take Hood's Pills and the effect was like magic, restoring us to perfect health and preventing severe sickness and doctor's bills. J. H. TOLIN, 116 E. 12th St., San Francisco, Cal. Hood's Pills.

Hood's Pills Cures
Hood's Pills cure constipation. Try a box.

BRODIE'S



LIVER PILLS

FOR BILIOUSNESS, DYSPEPSIA, SICK HEADACHE, WEAK STOMACH, AND ALL DISORDERS OF THE LIVER.

I have used Brodie's Pills for many years in my family and have found that cases of biliousness, indigestion, and all the liver troubles, as well as a Liver Pill do not think they are as equal. G. H. WILSON, 116 E. 12th St., San Francisco, Cal.

SOLD BY ALL DRUGGISTS.
L. L. LYONS & CO., Proprietors, New Orleans, La.

The Greatest Medical Discovery of the Age.

KENNEDY'S MEDICAL DISCOVERY.

DONALD KENNEDY, OF OAKBURY, MASS., Has discovered in one of our common nature weeds a remedy that cures every kind of Humor, from the worst Scrofula down to a common Pimple.

He has tried it in over eleven hundred cases, and never failed except in two cases (both thunder humors). He has now in his possession over two hundred certificates of its value, all within twenty miles of Boston.

A benefit is always experienced from the first bottle, and a perfect cure is warranted when the right quantity is taken.

When the lungs are affected it causes shooting pains, like needles passing through them; the same with the Liver or Bowels. This is caused by the ducts being stopped, and always disappears in a week after taking it.

If the stomach is foul or bilious it will cause squeamish feelings at first. No change of diet ever necessary. Eat the best you can get, and enough of it. Dose, one tablespoonful in water at bedtime, and read the Label.

McELREES' WINE OF CARDUI.



For Female Diseases.

W. BAKER & CO.'S Breakfast Cocoa



No Alkalies
Other Chemicals are used in the preparation of W. BAKER & CO.'S Breakfast Cocoa which is absolutely pure and soluble.

TOWER'S FISH BRAND SLICKER



The Best Waterproof Coat in the World!

Why Suffer?



Latest Styles
L'Art De La Mode.

SUBURBAN COTTAGE.

A Neat Cottage That Can Be Built at Moderate Cost.

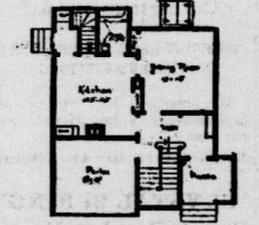
Although Costing But a Little Over Two Thousand Dollars It Would Be a Credit to Any Village or Neighborhood.

It is comparatively an easy matter to plan a large house where the cost limit is not rigidly defined; but to plan a very small house, that shall be convenient, that may be cheaply built, and yet that will be a credit to any neighborhood, is quite another matter.

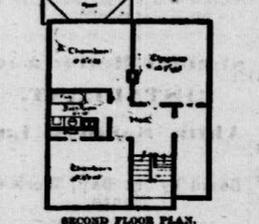


A SUBURBAN COTTAGE.

There is a much greater demand for the latter style of building, and in the design here shown it is the belief of the author that the problem has been fairly solved. The design here shown illustrates a very pretty cottage of ample sized rooms, that could be



adapted for a village or suburban home where one has land enough to set off the house. The plumbing being directly over the sink makes a saving and is less likely to freeze. Height of stairs 8 feet 6 inches or 8 feet 3 inches; finish white wood or elm. Cost \$2,000 to \$2,400. Many additions such as fireplaces, piazza on front, etc., could be made if one desired to pay as high as \$2,500 or \$3,000. The architect is J. F. & G. H. Smith, Boston.



Mass., and the designs here given are reproduced from the Mechanical News.

TO MAKE A SUN-DIAL.

It requires Some Thought and Considerable Patience. In reply to an inquiry, these hints are given for the construction of a sundial. The essential parts are a style, or "gnomon," to cast the shadow, and a perfectly level plate, with an arc-dial attached, for registering the shadow. These vary from those of 22, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180, 195, 210, 225, 240, 255, 270, 285, 300, 315, 330, 345, 360, 375, 390, 405, 420, 435, 450, 465, 480, 495, 510, 525, 540, 555, 570, 585, 600, 615, 630, 645, 660, 675, 690, 705, 720, 735, 750, 765, 780, 795, 810, 825, 840, 855, 870, 885, 900, 915, 930, 945, 960, 975, 990, 1005, 1020, 1035, 1050, 1065, 1080, 1095, 1110, 1125, 1140, 1155, 1170, 1185, 1200, 1215, 1230, 1245, 1260, 1275, 1290, 1305, 1320, 1335, 1350, 1365, 1380, 1395, 1410, 1425, 1440, 1455, 1470, 1485, 1500, 1515, 1530, 1545, 1560, 1575, 1590, 1605, 1620, 1635, 1650, 1665, 1680, 1695, 1710, 1725, 1740, 1755, 1770, 1785, 1800, 1815, 1830, 1845, 1860, 1875, 1890, 1905, 1920, 1935, 1950, 1965, 1980, 1995, 2010, 2025, 2040, 2055, 2070, 2085, 2100, 2115, 2130, 2145, 2160, 2175, 2190, 2205, 2220, 2235, 2250, 2265, 2280, 2295, 2310, 2325, 2340, 2355, 2370, 2385, 2400, 2415, 2430, 2445, 2460, 2475, 2490, 2505, 2520, 2535, 2550, 2565, 2580, 2595, 2610, 2625, 2640, 2655, 2670, 2685, 2700, 2715, 2730, 2745, 2760, 2775, 2790, 2805, 2820, 2835, 2850, 2865, 2880, 2895, 2910, 2925, 2940, 2955, 2970, 2985, 3000, 3015, 3030, 3045, 3060, 3075, 3090, 3105, 3120, 3135, 3150, 3165, 3180, 3195, 3210, 3225, 3240, 3255, 3270, 3285, 3300, 3315, 3330, 3345, 3360, 3375, 3390, 3405, 3420, 3435, 3450, 3465, 3480, 3495, 3510, 3525, 3540, 3555, 3570, 3585, 3600, 3615, 3630, 3645, 3660, 3675, 3690, 3705, 3720, 3735, 3750, 3765, 3780, 3795, 3810, 3825, 3840, 3855, 3870, 3885, 3900, 3915, 3930, 3945, 3960, 3975, 3990, 4005, 4020, 4035, 4050, 4065, 4080, 4095, 4110, 4125, 4140, 4155, 4170, 4185, 4200, 4215, 4230, 4245, 4260, 4275, 4290, 4305, 4320, 4335, 4350, 4365, 4380, 4395, 4410, 4425, 4440, 4455, 4470, 4485, 4500, 4515, 4530, 4545, 4560, 4575, 4590, 4605, 4620, 4635, 4650, 4665, 4680, 4695, 4710, 4725, 4740, 4755, 4770, 4785, 4800, 4815, 4830, 4845, 4860, 4875, 4890, 4905, 4920, 4935, 4950, 4965, 4980, 4995, 5010, 5025, 5040, 5055, 5070, 5085, 5100, 5115, 5130, 5145, 5160, 5175, 5190, 5205, 5220, 5235, 5250, 5265, 5280, 5295, 5310, 5325, 5340, 5355, 5370, 5385, 5400, 5415, 5430, 5445, 5460, 5475, 5490, 5505, 5520, 5535, 5550, 5565, 5580, 5595, 5610, 5625, 5640, 5655, 5670, 5685, 5700, 5715, 5730, 5745, 5760, 5775, 5790, 5805, 5820, 5835, 5850, 5865, 5880, 5895, 5910, 5925, 5940, 5955, 5970, 5985, 6000, 6015, 6030, 6045, 6060, 6075, 6090, 6105, 6120, 6135, 6150, 6165, 6180, 6195, 6210, 6225, 6240, 6255, 6270, 6285, 6300, 6315, 6330, 6345, 6360, 6375, 6390, 6405, 6420, 6435, 6450, 6465, 6480, 6495, 6510, 6525, 6540, 6555, 6570, 6585, 6600, 6615, 6630, 6645, 6660, 6675, 6690, 6705, 6720, 6735, 6750, 6765, 6780, 6795, 6810, 6825, 6840, 6855, 6870, 6885, 6900, 6915, 6930, 6945, 6960, 6975, 6990, 7005, 7020, 7035, 7050, 7065, 7080, 7095, 7110, 7125, 7140, 7155, 7170, 7185, 7200, 7215, 7230, 7245, 7260, 7275, 7290, 7305, 7320, 7335, 7350, 7365, 7380, 7395, 7410, 7425, 7440, 7455, 7470, 7485, 7500, 7515, 7530, 7545, 7560, 7575, 7590, 7605, 7620, 7635, 7650, 7665, 7680, 7695, 7710, 7725, 7740, 7755, 7770, 7785, 7800, 7815, 7830, 7845, 7860, 7875, 7890, 7905, 7920, 7935, 7950, 7965, 7980, 7995, 8010, 8025, 8040, 8055, 8070, 8085, 8100, 8115, 8130, 8145, 8160, 8175, 8190, 8205, 8220, 8235, 8250, 8265, 8280, 8295, 8310, 8325, 8340, 8355, 8370, 8385, 8400, 8415, 8430, 8445, 8460, 8475, 8490, 8505, 8520, 8535, 8550, 8565, 8580, 8595, 8610, 8625, 8640, 8655, 8670, 8685, 8700, 8715, 8730, 8745, 8760, 8775, 8790, 8805, 8820, 8835, 8850, 8865, 8880, 8895, 8910, 8925, 8940, 8955, 8970, 8985, 9000, 9015, 9030, 9045, 9060, 9075, 9090, 9105, 9120, 9135, 9150, 9165, 9180, 9195, 9210, 9225, 9240, 9255, 9270, 9285, 9300, 9315, 9330, 9345, 9360, 9375, 9390, 9405, 9420, 9435, 9450, 9465, 9480, 9495, 9510, 9525, 9540, 9555, 9570, 9585, 9600, 9615, 9630, 9645, 9660, 9675, 9690, 9705, 9720, 9735, 9750, 9765, 9780, 9795, 9810, 9825, 9840, 9855, 9870, 9885, 9900, 9915, 9930, 9945, 9960, 9975, 9990, 10005.



pin (if one be used) is inserted in the plate, or where the wedge (if that form of gnomon be preferred) tapers away to nothing toward the south. The same center should be used in describing the hour circle. There are abstruse mathematical rules for laying out the radiating lines in advance. But it is easier to locate them by practical experiment. Watch in hand, one should first mark the noon point on the outer circle, using a temporary pin to cast the shadow. Then, in like manner, the points where the shadow crosses the arc at 1, 2, 3 and the other afternoon hours, and at 6, 7, 8 and the other forenoon hours, should be carefully indicated. Halves and quarters may also be designated if desired.

days in the year would local "mean-time," or clock indications, agree with local "apparent-time," or sun-dial readings. For astronomical causes, there is, during most of the year, a variation of from one to ten minutes; and for a few days in November, the departure is as great as fifteen. Moreover, most of our clocks and watches nowadays, instead of registering true local time, are set to accord with a standard meridian east or west of us. From eastern Maine to Cleveland, for instance, we go by the seventy-fifth meridian. East of that the true time is four minutes later for each degree of longitude, and westward four minutes earlier.—N. Y. Tribune.

MINES AND MINING.

Mexico has 250 mines, worked by 100,000 men. COAL mines were begun in Pennsylvania in 1764. Some of the Australian gold veins are 150 feet thick.

There are copper mines in every country in Europe. Gold was discovered in the Ural mountains in 1745.

The first oil company was formed in New York in 1854. There are now gold mines in every country in Europe.

There are gold washings in almost every part of Idaho. The great Nevada silver mines were opened in 1859.

The tin production of the world in 1891 was 69,993 tons. SPAIN is one of the principal copper producing countries.

The world's coal mines produced in 1889 485,000,000 tons. COAL mining in the United States began at Pittsburgh in 1784.

The British Mineralogical society was established in 1800. The British government school of mines was opened in 1831.

Gold in paying quantities was discovered in California in 1849. In every ton of sea water there is about one grain of pure gold.

The annual production of gold and silver is about \$200,000,000. The United States produces 35 per cent of all the lead in the world.

GREAT BRITAIN, Australia and Java are the three leading tin countries. ITALY has 47,000 miners. The marble quarries employ 20,000 more.

The first iron mine in the United States was opened in Virginia in 1663. Patent for Iron and Steel.

The invention refers to a new material, called "siderothen," for the coating of iron and steel surfaces, with a view to prevent the formation of rust upon them. The compounds used for the manufacture of this paint are the tar obtained from works producing fat gas, "goudron," which is a mixture of about 85 parts of refined Trinidad asphalt and 15 parts of refined asphalt oil, or instead of the "goudron," sulphur may be used. If "goudron" be employed, this is dissolved in the gas tar, in suitable quantities, and this mixture can then forthwith be employed for the purpose in view. If sulphur be used, 8 per cent. of it is mixed with the gas tar, and this mixture is then heated to about 100 degrees C.

French Submarine Boats. Naval science seems to be going ahead about as fast as the romancers can get on in their imaginings. The French, for instance, are doing with submarine boats almost more than their fiction writers have managed to get into their books. A new submarine boat has just been launched and sent sailing about under water which contains a crew of twelve men. Hitherto the number of men accommodated in these under-water craft has seldom if ever gone above five. This boat is in the shape of a fish, and it carries a torpedo at its head. How it discharges the torpedo forward without coming to grief itself is not explained, but this may be a state secret. Everything on board is worked by electricity.

The Cost of Railroad Cars. A flat car costs about \$380, a flat bottom coal car \$475, a gondola drop bottom car \$560, a double hopper bottom coal car \$540, a box car \$600, a stock car \$550, a fruit car (ventilated) \$700 and a refrigerator car \$900. A four-wheeled caboose costs \$350, and an eight-wheeled one \$700. The prices given on the above cars include power brakes and vertical plane couplers. A 60-foot mail and baggage car costs \$3,500, a second-class coach \$4,800, a first-class coach \$5,500, while a first-class Pullman car costs \$15,000.

Is Lightning Caused by Rain? It is popularly supposed that the sudden downpour which usually follows a bright flash of lightning is in some way caused by the flash. Meteorologists have proven that this is not the case, and that, exactly to the contrary, it is not only possible but highly probable that the sudden increase in precipitation is the real cause of the flash!

His Knowledge. "The amount of toll and ingenuity you have put into your calling," said the city missionary to the burglar, "would have made you comfortably well off if you had engaged in some honest business."

"Mebbe it would," answered the burglar, "but a man in the burglar business has the satisfaction that he don't have to ask nobody to give him a job."—Indianapolis Journal.

The Area of Oceania. As a sort of a companion piece to the oceanic literature that has heretofore been published we give the following latest estimates of the five great oceans: Pacific, 71,000,000 square miles; Atlantic, 35,000,000 square miles; Indian, 29,000,000 square miles; Antarctic, 5,000,000 square miles; Arctic, 4,500,000 square miles.

Choosing the Lesser Evil. She—It is true that Miss Richleigh has money, but she is also very exacting. If you marry her, you will have to give up smoking and drinking.

He—If I don't marry her, I shall have to give up eating also.—Life.

Based on a Snip. Little Boy—If guess papa must a-been born grown up. Uncle John—Why so? Little Boy—He's always wantin' me to do something sensible.—Good News

Whomst? I know. "Do you see condensed milk?" "Guess so." "The milkman can put a quart of it in a pint jar."—Puck.

FARMER AND PLANTER.

SOUTHERN FARMING.

Subjects that the Farmers of the South Should Know of. THE ONE-CROP PLAN.

Most southern farmers rely mainly upon the money crop—cotton. In March, April and May the crop is planted; in July the crop has been "laid by," and August and September are passed, for the most part, in comparative idleness; by November 15 the bulk of the crop is gathered and sold, and nearly all the money spent; and then up to March the farmers perform but little work, except to feed the stock and keep in a supply of wood, eating up and consuming largely what they have earned by their summer labor.

They are poor in purse, of course, and will stay poor, and ought to stay poor. A goodly part of the year is spent in talking politics. Too much cotton, and too much loafing in town, and too much talking of politics have almost bankrupted this country.

ROBBERY SYSTEM. Robbing the soil year by year, and paying back nothing, does not pay in the end. We know some farmers who added largely to their bank accounts by continuous robbing of the soil; but the time came when the soil failed to respond liberally, and in a few years the money in the bank was gone; and following this persistent and ruthless robbing of the land.

But in time, as a matter of natural consequence, the land had become impoverished, and the farmer awoke to the realization of the fact that in robbing the fertility of his land he had robbed himself, as the gradual disappearance of the bank fund proved. A number of just such men live right here, and their names and methods are as familiar as the nose on our own face or the hand that pens these lines. Some of their heads are hoary with the frosts of old age, but not all of them.

REDUCE THE COST OF PRODUCTION should be the farmer's earnest study. Cost of production is largely lessened in many ways: First, in having the land well plowed and the clods pulverized—in fact, by thorough preparation of the soil before the seed are planted. Second, by using the best quality of seed, and putting it in the ground in the right manner. Third, by using fertilizers of the right kinds and proportions, wisely applied.

Fourth, planting, cultivating and harvesting as much as possible by machinery, and substituting animal for human labor.

It does not do to plant a crop on poor land and expect much profit. Poor soil will not produce profitable crops. Common sense ought to teach this. But people do not always use their best common sense to the best advantage. It is usually good judgment that insures success, and bad judgment that results in failure.

HERE AND THERE. —Religion that will not improve a man's domestic animals is not the right sort for a farmer.

—Wood ashes is an almost universal fertilizer, and yet it is a substance that is piled out back of the smoke-house for years, to become a total loss.

—No farm was ever properly stocked with cattle alone, horses alone, or any other sort alone. It can only be done with a properly selected variety.

—It is well enough to breed hogs early to encourage the early habit. But not so with bulls, for they should be well matured and vigorous for best results.

—There is no money in putting extra weight on hogs to be marketed in the immediate future. Additional fat only means a lower price as things are now.

—Don't try to stimulate egg production with irritating condiments. They give the hen a headache. Plenty of plain, wholesome food is what is needed.

—The poor man's cow is proverbially a poor cow, but there is no reason why it should be. It is just as easy, and a great deal more profitable to have a good cow than a poor one.

—A bride recently invented for kickers is useful. It has rings for the reins attached just below the rosettes, or where the cheek loops up, and pulling raises the horse's head higher and higher so he can not kick.

—Any part of the farm, or any sort of stock which is not profitable is a tax on all the rest of the farm. It should be the aim of every farmer to make a profit, be it ever so little, from every department.

—Probably never before this year were hogs turned into the wheat field to harvest an abundant crop, and it is to be hoped that this will never occur again, if brought about by the low price of that cereal.

—Those who raise eggs for market should keep but one breed; or if more than one breed is kept, the eggs should be carefully assorted as to size and color. All white eggs or all tinted eggs sell better than streaked lots. "Looks go a long way."

—Much can be learned by observing nature. A horse will never stand facing a wind in a pasture, but will always turn his back. A horse heated by driving can be foundered in a few minutes by standing facing the wind or in a draught.

—It is to be hoped that the experiment stations will give us more slaughter tests of wheat-fed hogs. The low price of wheat has opened a new field for feeders, and the stations can help settle some of the questions which have arisen in connection with it.

—If combined capital does not consider it advisable to crush them out of existence, the cotton-seed oil mills now operating in every locality where cotton is grown extensively will continue to benefit the producer of cotton, while remaining prosperous themselves.

—Many farmers breed horses to suit their own prejudices, regardless of any market value, while those who make horse-breeding profitable breed for the markets big, heavy draft horses or large, stylish coaches. The grade mares make the finest farm teams and the geldings sell at top prices.

—It is said to be so dry in some parts of the country that farmers have to soak their pigs in the river before they will hold their water. While it is hardly that dry, yet this may serve to keep in mind the fact that pigs should have more liberal rations of slop or other feed now that pastures are shortened by the drought.

—Europeans are enormous consumers of pork—when they can get it, as they easily can in this country. The European population of this country is increasing rapidly. The profit of raising hogs depends largely upon the number of consumers. These facts, put together properly indicate that hog raising will continue to be a profitable recreation for progressive farmers.

—To raise good horses and keep them looking well and in good life we must not work the life out of them, especially not load them too heavy. That is what makes old horses out of too many colts. Because they are willing and walk right off we forget and put on a heavy load. If we would just stop and think, our judgment would tell us that it was wrong.

FARMER AND PLANTER.

It is as soon as dry enough. Then break as deep as possible, and plow as soon as it is dry enough after every rain. I save all the ashes I can, buying the leached if I can get no other, and sow broadcast on the land and plow under in March.

In April my peach seed will begin to sprout and I lay off the land in checks twenty feet wide and plant the seed as soon as reported and cover four inches deep with well rotted chip manure or rot soil from the woods.

If the land is not as large as is necessary to plant all my seed I plant in what is called a "quincunx," that is one tree between every four, which gives me more trees to the acre and makes them no nearer together. I drive a stake down by each seed, by the land off in four feet rows for cotton, having no cotton in the row of trees.

Then for the cotton make a compost of cotton seed and phosphate, put in the drill at the rate of 400 pounds of the drill and 300 of the latter per acre. The land can be cultivated, if necessary, two years in cotton. The second year sow "Bar" clover seed between the cotton rows the last of July or first of August, and run a 30-inch sweep just as shallow as possible. The Bar clover will grow through the winter and die down in May or June, when the land can be sown in peas. Never transplant a tree that bears a stone fruit, for its heads off the top root, and never graft one, for it will soon decay.—C. G. L. Dill, in Southern Farmer.

Weaning Young Pigs. If at five or six weeks old the young pigs are eating and growing well, increase their feed, giving them all that they will take, and decrease the feed of the sow gradually for nearly two weeks. At the end of this time the two strongest youngsters of the litter are taken away. Again, after two days, another pair, and so on till all are weaned. This tends to even up the different pigs of the litter, if there is any variation in size and uniformity in a lot, and add to their selling value.

By following this course the sow is given the very best chance, and an equal chance of spoiling her milking qualities is prevented, which is very important if she is to continue to be a brood sow.—Canadian Live Stock Journal.

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