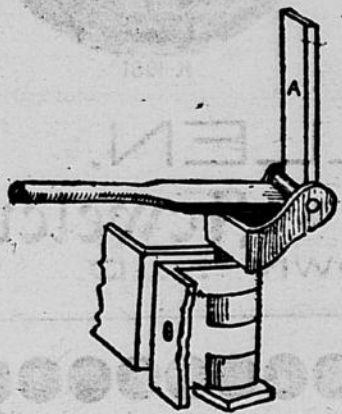


# ROAD AND FARM IMPROVEMENT

## A HOMEMADE STONE BOAT.

It Dumps Its Own Load and Can Be Used for the Heaviest Kind of Work.

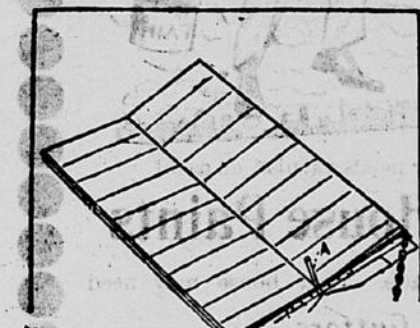
Make the boat in two separate parts, a right and a left half. Each half has a double floor, one level, the other inclined to the middle of the boat. The lower floor must be at least two inches thick, the upper may be slightly lighter. The latter is supported at its higher side by a cleat on the lower floor. Hinge the two halves together by



DETAILS OF HINGE.

means of heavy iron straps bent forward at the hinge, as shown in Fig. 2. The axis of the hinge is wrench-shaped at the top and is fitted with a flat iron rod, shown at a in both drawings, bent at right angles and so fitted that it may be turned up or down. Fasten the chain at the sides of the boat.

At the rear, instead of heavy wooden pieces, bolt the boards of the floor together by means of flat iron rods pro-



THE BOAT COMPLETE.

vided with a hook and ring for holding the two halves together. When ready to dump, unhook the rear, throw it down so as to catch in the ground, and when the team pulls up, the sides will be drawn apart, and the load will remain on the ground. Very heavy stones may be loaded on behind, to avoid the rather high edges. — Orange Judd Farmer.

## SOME ROAD-MAKING HINTS.

While National Agitation Is Going On Some Practical Work Might Well Be Done at Home.

The air is full of talk about good roads. It is "good roads, good roads," everywhere you go. But isn't it about time something practical was coming to pass? All talk with no results amounts to nothing, so let us get down to the root of the matter. How are we really to have good roads? Well, I have seen many plans tested, but this is the best of all: Make good, deep ditches on each side of the road to carry off all water. In digging the ditches, throw all dirt into the road and add enough from other sources to elevate the roadbed to a good height above the ditches. The roadbed should be 18 feet wide and should be highest in the center and sloping slightly each way so as to drain all water into the ditches. Cut down the hill and fill up the hollows. As a railroad company had rather pull a train four miles over a level road than a half mile up a steep grade so it is a vast deal better to observe this rule for wagon roads. And now to make the roads permanently good gravel them good. Better macadamize them if at all practical. But at least gravel, and that with thoroughly good gravel. If parts need tiling be sure to tile them and do this properly. Let every hour's work be well done. There is vastly more truth than poetry in the old adage that "what is worth doing at all is worth doing well." Fill up all small ruts when they first appear. It is much easier done then than when a foot deep. Besides, it might save a wagon or a buggy wheel from being broken or a horse from being crippled. It might even save a human being's limb or even his life. — T. E. Richey, in Epitome.

**Number of Cows in Europe.**  
A German journalist has just published the following figures, as representing the number of cows in the principal countries of continental Europe, with the estimated production of butter and cheese in metric tons: Russia, 10,000,000 cows, 350,000 tons produce; Germany, 8,950,000 cows, 300,000 tons; Austria, 6,000,000 cows, 170,000 tons; France, 5,000,000 cows, 145,000 tons; Belgium, 800,000 cows, 60,000 tons; Switzerland, 800,000 cows, 70,000 tons; Denmark, 1,050,000 cows, 60,000 tons.

**Eat an Apple at Night.**  
"Everybody ought to know," says the Family Doctor, "that the very best thing they can do is to eat apples just before retiring for the night. The apple is an excellent brain food, because it has more phosphoric acid in easily digested shape than any other fruit. It excites the action of the liver, promotes sound and healthful sleep, thoroughly disinfects the mouth and prevents indigestion and throat diseases."

## NATIONAL AID FOR ROADS.

Col. Brownlow Is Sure That the Prospects of His Pet Measure Are Growing Brighter.

Col. Brownlow, of Tennessee, the pioneer advocate of national aid to road improvement, has given to the press an interview in which he discusses the progress and prospects of the good roads movement. He says:

"The movement is making gigantic strides. Judging from the letters I receive, nearly everybody in the United States wants the government to aid in improving the roads. I know from the comments of the press, and the resolutions adopted by state legislatures and conventions in all parts of the country that national aid is making enormous headway among the people. In a recent communication from W. H. Moore, president of the National Good Roads association, he says:

"Everywhere I go governors and officials and the great mass of common people want the government to assist them in building roads—not as a question of charity, but governmental duty."

"I have a letter from Prof. J. H. Bruner, president of Hiwassee college, Tenn., in which he says:

"Millions have gone for the improvement of harbors and rivers, and millions more will go for canals. But the good work should not stop there. Good roads are needed to get the products of the country to the railways, the rivers, the cities, the outside world. Rural routes for the postal department need improvement."

"I am entering my eightieth year. No enterprise of equal importance to this good-roads movement has come before the American people in my day. There is a blessing in it for everybody, in town and country."

"But don't you think, colonel," asked a friend, "that the proposal to spend such a large sum along an entirely new line of national expenditure will prove startling when the people take a sober second thought?"

"That the proposition is a new one in one sense, I concede. The idea of appropriating government funds to be spent in the rural districts for the direct benefit of the country people is decidedly new. Heretofore, the principal relation which the farmers have sustained toward the government is that of taxpayers. But I think it is about time for that to come to an end, and, if I am not mistaken, the farmers are coming to the same conclusion."

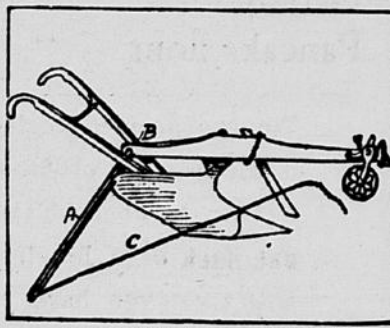
"As to the size of the appropriation, I want to say that I think it is very small when compared with the sums we are appropriating for other purposes. This is a period of profound peace; yet we are proposing to vote \$77,000,000 for the army and \$96,000,000 for the navy to be expended in a single year. My bill proposes an appropriation of only \$24,000,000, to be spent in three years, or \$8,000,000 a year, just one-twelfth of what we propose to spend on our navy. Nobody was particularly startled last year when we appropriated over \$70,000,000 for river and harbor improvement."

I don't think the tax-paying farmer will be very badly scared at an appropriation of \$8,000,000 to help them build good roads. Besides, they know they will have to pay just as much tax whether they get any of it back or not. "You can say that, on the whole, I am well satisfied with the progress we have made, and that I firmly believe federal cooperation with the states in building roads is coming, and coming soon."

## BREAKING A FURROW COMB.

Simple Attachment to Plow by Means of Which Lumps Are Mashed Expeditiously.

Follow the plow with a drag before the furrow comb dries. Lumps are easily mashed if taken before they form. A side beam may be easily rigged to



ATTACHMENT TO PLOW.

the plow to do the work. A piece of 4x4 (a), hinged or tied with one corner down to the plow beam at b, just behind the moldboard, answers very well. A light rope (c) should reach back from the doubletree to pull the outer end. Slack away on this rope until the drag slopes back about 45 degrees; it seems to work better that way. The one I use covers three furrows, so each furrow gets dragged three times. — James H. Merrill, in Farm and Home.

## How One Farmer Prospered.

The Sussex (N. J.) Independent tells of a farmer in that county whose check would be good for \$20,000, who has never produced a pound of feed that was not produced on his farm. He raises all his own live stock, with the exception of horses. If he has not sufficient grain to carry him through, he sells some of the stock and thus keeps up with the game. He sells his milk to a creamery, keeps just what his farm will support in the way of cows, raises his own pork, and always has a cellar full of necessities. He has always farmed in this way, and has never made less than \$500 a year clear in his life. He has always lived on the same farm.

The separator does not need much oil at a time, but each bearing should have some oil at each running. An occasional oiling of kerosene will cut the gum and facilitate the smooth, easy running of the machine.

## LIVING AMONG THE ALPS.

Objects of Interest to an English Traveler Sojourning in a Mountain Town.

All the world comes over the Wengern Alp in Switzerland, writes Mr. Daniel Rhodes, in "A Pleasure Book of Grindelwald," but only a small part of it stops longer than a few hours, or one night at the most. The reasons for this are obvious after reading the letter of a man who was once obliged to stay at the Scheidegg for several weeks.

"This is the clearest day of the season," he wrote, "and there is so much noise in and about this hotel that for the present it is quite impossible to work, or perhaps even to write an intelligible letter. The little brass cannon is going off every few moments under my window, but I prefer that to the brass band."

"The view is also distracting. Every path to hilltop or glacier is now a wriggling serpent of human forms; and just in front of the hotel are crowds more, of all nationalities, taking all kinds of fruhechoppen and lunches."

"There are green-coated Germans armed with maps and guide books, who, before they go down, will know the name of every peak, pass and glacier to be seen from the Lanberhorn top; young, stalwart German girls with knapsacks on backs; unkempt Englishwomen on walking toots, tired in the eyes and with set teeth; enormous provincial Frenchmen with khaki knickerbockers, baby socks and little tricolor flags; bibulous, musical Swiss in great numbers—most of these making much noise."

"Less noisy, perhaps, but triumphant above all, is the American voice, level and clear, that leaves nothing to the imagination."

"Telescopes abound. To them are tied great placards with neatly printed 'Gems, Chamols.'

"It costs a franc to have the cannon fired. When some noise-loving Swiss has produced the coin the concierge puts in the charge and then stands up and shouts: 'Cannonenschuss! Coup de canon!' (Cannon-fring!) while a porter gives further emphasis to the announcement by ringing two terrible bells. The concussion may only break a window pane, or it may bring down an avalanche from the Jungfrau. If it is the latter a dozen voices are bawling: 'Avalanche! Lawine!' and out of the restaurant come piling crowds of tourists, napkins in hand, to gaze at this long-expected wonder. Most excited, apparently, of all comes the manager of the hotel, rushing at a telescope, and calling out: 'Avalanche! Avalanche! Funzig times alles!' (Ten cents a piece.) It is his regular stock-in-trade joke, and the Swiss like it, but the Germans look doubtful."

## DOUGHTY INDIAN FIGHTERS.

Heroic Defense of a Little Band of Soldiers Against a Fierce Attack.

Dr. Cyrus T. Brady, in his stories of "Indian Fights and Fighters," in Pearson's, describes a battle at Powell's corral as follows:

"While all these preparations were being rapidly made without confusion or alarm, the surrounding country was filling with a countless multitude of Indians. It was impossible at the time to estimate the number of them, although it was ascertained later that more than 3,000 warriors were present and engaged. Red Cloud, himself, was in command, and with him were the great chiefs of the tribes of the Sioux, who were all represented—Unkpapas, Miniconjous, Oglalas, Brules and Sans Arcs, besides hundreds of Cheyennes."

"So confident of success were they, that, contrary to their ordinary practice, they had brought with them their women and children to assist in carrying back the plunder! These, massed out of range on the farthest hills, constituted an audience for the terrible drama about to be played in the amphitheater beneath them."

"We can well imagine the thoughts of that little band of 32, surrounded by a force that outnumbered them one hundred to one. Their minds must have gone back to that winter day, some seven months before, when twice their number had gone down to defeat and destruction under the attack of two-thirds of their present foe. It is probable that not one of them ever expected to escape alive. The chances that they could successfully withstand an attack from such an overwhelming number of foes of the smallest. But not a man flinched, not a man faltered. They looked to their weapons, settled themselves comfortably in the wagon beds, thought of Fetterman and their comrades, and prayed that the attack might begin, and begin at once."

"Such was the courage and desperation of these Indians, that, in spite of repulse after repulse, and slaughter awful to contemplate, they made no less than six several and distinct charges in three hours upon that devoted band. After the first attack made by the men on horseback, not a single casualty occurred among the defenders of the corral. It was afternoon before the Indians got enough."

All Wish to Know.  
"I am not of an inquisitive disposition," remarked Dinsmore, "but there is one secret that I should really like to know."  
"What secret is that?" asked Thornton.  
"The secret of success." — Detroit Free Press.

## Making Himself Safe First.

"What are you plunging back in the water for, Pat? You just swam ashore!"  
"Shure, Oi had to save meself first; now Oi'm goin' back to fetch Molke." — Modern Society.

## Exhausted the Font.

Sir Samuel Sims saw sweet Sara Sampson swimming. Suddenly she seemed sinking; Sir Samuel stood stunned. Striding seaward, Sir Samuel, Sir Samuel swiftly swam seawards. Sir Samuel skillfully supported swooning Sara. Swimming shorewards Sir Samuel successfully rescued Sara. Seeming somewhat shaky, Sir Samuel sampled some spritis—special Scotch. Sara saw Sir Samuel's self-sacrificing spirit; Sir Samuel saw Sara's sweetness. Sir Samuel soon sought Sara. Striding slowly, Sara sighed softly. Sir Samuel seemed speechless.  
"Say something, Sir Samuel," said Sara.  
"Say Sam, Sara," said Sir Samuel.  
Sara, smiling shyly, softly said "Sam."  
"Sara—Sally!" stammered Sir Samuel.  
"Sweet Sara—sweetheart!" Sara solemnly surmised.  
Please stop this. We are chort of ecces. (Printer). — N. Y. News.

## CUTICURA PILLS

For Cooling and Cleansing the Blood in Torturing, Disgusting Humors — 60 Chocolate Pills 25c.

Cuticura Resolvent Pills (chocolate coated) are the product of twenty-five years' practical laboratory experience in the preparation of remedies for the treatment of humors of the skin, scalp and blood, with loss of hair, and are confidently believed to be superior to all other blood purifiers, however expensive. Complete external and internal treatment for every humor may now be had for \$1.00, consisting of Cuticura Soap to cleanse the skin, Cuticura Ointment to heal the skin, and Cuticura Resolvent Pills to cool and cleanse the blood. A single set is often sufficient to cure.

Impossible.  
"Sir!" exclaimed the injured party, "you stuck your umbrella into my eye."  
"O, no," replied the cheerful offender, "you are mistaken."  
"Mistaken?" demanded the irate man. "You idiot, I know when my eye is hurt, I guess."  
"Doubtless," replied the cheerful fellow, "but you don't know my umbrella. It borrowed this one from a friend to-day." — Stray Stories.

Hand Power Hay Press \$28.00.  
Greatest, simplest, best invention of the age. A boy can make regular sized 12x18x48 in. bales his fun and two boys can bale three tons per day easily.

SEND THIS NOTICE TO-DAY to the John A. Salzer Seed Co., La Crosse, Wis., with 5c stamps for mailing, and get their big catalog, fully describing this great Hay Press, also hundreds of tools and thousands of varieties of Farm and Vegetable Seeds. [K. L.]

## Small Figures.

Mrs. Bacon—I see by the papers that the average family in the United States has four and seven-tenths persons.  
Mr. Bacon—I suppose I'm the seven-tenths in this family. —Yonkers Statesman.

## Ladies Can Wear Shoes

One size smaller after using Allen's Foot-Ease. A certain cure for swollen, sweating, hot, aching feet. At all druggists, 25c. Accept no substitute. Trial package FREE. Address A. S. Olmsted, Le Roy, N. Y.

'05—Yes, indeed, I'd rather be right than president. "Well, I'd rather be president and take chances." — Cornell Widow.

Do not believe Piso's Cure for Consumption is an equal for coughs and colds. J. F. Boyer, Trinity Springs, Ind., Feb. 15, 1900.

Give the reins to appetite and you give wings to happiness. — Ram's Horn.

Politeness of makes liars of honest men. — Chicago Daily News.

## DANGEROUS NEGLECT.

It's the neglect of backache, sideache, pain in the hips or loins that finally prostrates the strongest body. The kidney warnings are serious—they tell you that they are unable to filter the body's waste and poison from the blood—the sewers are clogged and impurities are running wild to impregnate nerves, heart, brain and every organ of the body with disease elements. Doan's Kidney Pills are quick to soothe and strengthen sick kidneys, and help them free the system from poison. Read how valuable they are, even in cases of long-standing:

L. C. Lovell, of 415 North First St., Spokane, Wash., says: "I have had trouble from my kidneys for the past ten years. It was caused by a strain to which I paid little attention. But as I neglected the trouble, it became worse and worse until any strain or a slight cold was sure to be followed by severe pain across my back. Then the action of the kidney secretions became deranged and I was caused much annoyance besides loss of sleep. Doan's Kidney Pills were brought to my notice and after taking them a short time their good effect was apparent. All the pain was removed from my back and the kidney secretions became normal. Doan's Kidney Pills do all that is claimed for them."

A FREE TRIAL of this great remedy which cured Mr. Lovell will be mailed on application to any part of the United States. Address Foster-Milburn Co., Buffalo, N. Y. For sale by all druggists, price 50 cents per box.

**THE BEST POMMEL SLICKER IN THE WORLD**  
TOWER'S FISH BRAND  
Like all our waterproof coats, suits and hats for all kinds of wet work, it is often imitated but never equalled. Made in black or yellow and fully guaranteed by A. TOWER & CO., TOWER BUILDING, BOSTON, MASS. LATEST IMPROVEMENT.  
FOR SALE BY ALL RELIABLE DEALERS. STICK TO THE SIGN OF THE FISH.

**LADIES WHO SUFFER**  
from Female Troubles can treat themselves with Great Ease and Safety. You apply it twice a day, and it does what no amount of medicine taken inwardly can do. For complete and latest testimonials apply to Mrs. M. S. Fetter, Detroit, Mich.

## A MICHIGAN MAYOR SAYS:

"I know Pe-ru-na is a Fine Tonic for a Worn-Out System."



Hon. Nelson Rice of St. Joseph, Mich., knows of a large number of grateful patients in his county who have been cured by Peruna.

Hon. Nelson Rice, Mayor of St. Joseph, Michigan, writes: The Peruna Medicine Co., Columbus, Ohio:  
Gentlemen: "I wish to congratulate you on the success of your efforts to win the confidence of the public in need of a reliable medicine. I know Peruna is a fine tonic for a worn out system and a specific in cases of catarrhal difficulties. You have a large number of grateful patients in this county who have used Peruna and have been cured by it, and who praise it above all other medicines. Peruna has my heartiest good wishes." — Nelson Rice.

## MARCH, APRIL, MAY.

Weak Nerves, Poor Digestion, Impure Blood, Depressed Spirits.

The sun has just crossed the equator on its yearly trip north. The real equator is shifted toward the north nearly eighteen miles every day. With the return of the sun comes the bodily ills peculiar to spring. With one percent of the nervous system another person, digestion poor; with others the blood is out of order; and still others have depressed spirits and tired feeling. All these things are especially true of those who have been suffering with

**BEST FOR THE BOWELS**  
**Cascarets**  
CANDY CATHARTIC  
THEY WORK WHILE YOU SLEEP  
GUARANTEED CURE for all bowel troubles, appendicitis, biliousness, bad breath, bad blood, wind on the stomach, foul mouth, headache, indigestion, pimples, pains after eating, liver trouble, yellow complexion and distention. When your bowels don't move regularly you are sick. Cascarets kills more people than all other laxatives together. You will never get well and stay well until you get your bowels right. Start with CASCARETS today under absolute guarantee to cure until you get your bowels right. Sample and booklet free. Address: Sterling Remedy Co., Chicago or New York.

Have you Experienced the Comfort and Luxury of Up-to-date Cycling?  
Eastern Dept. HARTFORD, CONN.  
**POPE MANUFACTURING CO.**  
Western Dept. CHICAGO, ILL.  
RIDE TWO-SPEED GEAR COASTER BRAKE CHAINLESS BICYCLES  
Catalogues free at our 30,000 dealers' stores, or any one Catalogue mailed on receipt of two-cent stamp.

**PISO'S TABLETS**  
The New Boon for Woman's Ills.  
SILENT suffering from any form of female disorder is no longer necessary. Many modest women would rather die by inches than consult anyone, even by letter, about their private troubles. PISO'S TABLETS attack the source of the disease and give relief from the start. Whatever form of illness afflicts you, our interesting treatise, Causes of Diseases in Women, will explain your trouble and our method of cure. A copy will be mailed free with a Generous Sample of the Tablets, to any woman addressing THE PISO COMPANY, Clark and Liberty Streets, WARREN, PA.

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EASY TO REMEMBER  
THE BEST WAY TO OBTAIN A THOROUGH KNOWLEDGE OF THE GAME. FOR SALE BY ALL NEW DEALERS. PAFRAET'S BOOK CO., TROY, N. Y. PRICE 25 CENTS.  
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