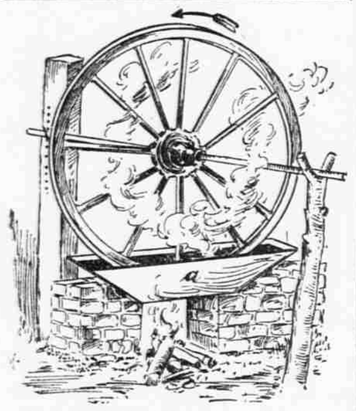
Setting Wagon Tires.

There are many jobs that a farmer can do for himself, if he only makes the attempt. One of these, says the American Agriculturist, is the setting of the tires on the wheels of his vehicles. The usual charges at a shop for one wheel will exceed the cost to the farmer of setting all four, and the time spent in hauling them to and from the shop, to say nothing of the trouble and vexation of unsatisfactory work or ruined wheels, is far greater than it would be to do the work himself. To do this, it requires an outlay of only the cost of a metal trough and linseed oil, about half a gallon to a set of wheels, though more than enough to



WHEEL IN POSITION FOR SETTING.

do the work will be needed, as the trough, while boiling, must be filled so as to cover the felloes.

This trough (a) can be made of galvanized iron, by a tinner. Set it on brick or stone in such a way that a fire can be built and kept up under it. Put in enough oil to cover the felloes, and let come to a boil. You are now ready to put in the wheels. The way this is done is shown so plainly in the illustration that description is unnecessary.

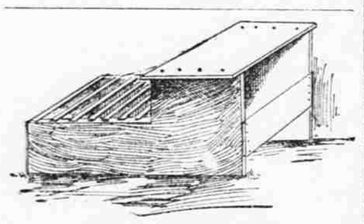
To prepare the wheels, let them soak in water until the tires are tight, washing out all the mud and dirt possible. After being placed in the oil, the wheel should be slowly turned to prevent charring. The length of time required to boil a wheel depends on its condition, as does the amount of oil it takes for a set. Two sets of wheels can be easily set in half a day. This job will prove far more satisfactory than one performed by a blacksmith, who, often on account of the dry wood swelling after he has shrunk the tire, ruins a wheel by dishing it.

Breeding Turkeys.

The best results in growing turkeys are from yearling hens bred to a gobbler two years old, and three would be still better. The young hen will lay more eggs the first year than she will in any year after, and if she mates with a gobbler two years or over the young turks will be active and vigorous. Watch the hen turkey carefully, and remove her first eggs as soon as laid, lest they become chilled. Two and sometimes three settings of turkey eggs must be taken from the young turkeys and set under common hens before the hen turkey will sit steadily herself. The hen turkey must be confined mornings when she has young chicks, or she will draggle them through the wet grass and thus them.

A Good Milk Stool

Is shown in the accompanying illustration. It is made of two boards 22 inches long and 10 or 12 inches wide. Nine



USEFUL MILK STOOL.

inches from one end saw half way through each board and split off the long end. Across the elevated end nail a board about 12 inches long for a seat. Place one-half inch cleats on the lower portion, upon which the pail is to rest. The pail is thus kept clean and is not easily upset.—Orange Judd Farmer.

Good Roads.

The latest cure for bad roads is crude oil, experiments with which are being made at the suggestion of good road associations. One barrel of oil is said to be sufficient to create a waterproof strip 100 feet long and 12 feet wide. Major Meigs, a civil engineer of Keokuk, Iowa, claims that no other material is as cheap and effective, and offers to have oil sent to responsible parties wishing to experiment, if they will pay the freight.—Epitomist.

Wood Ashes for Apple Trees.

In some tests at the New York Experiment Station it was found that the foliage was greatly improved in sections of the orchards treated with wood ashes and the trees were freer from scab. The color of the fruit was also improved in some seasons and with some varieties, but during the seasons which favored the perfect development of the fruit the color was not helped. Apparently the use of ashes has a tendency to hasten the perfect development of the fruit. Some seasons this ripening process was carried so far where ashes were used that the apples did not keep as well as on plants untreated.—Orange Judd Farmer.

Slow-Germinating Seed.

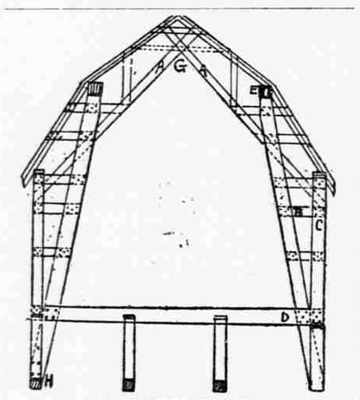
There are some kinds of seeds, like the salsify, that are so hard and dry that it seems impossible to germinate them quickly enough in spring so as to keep ahead of the weeds. We advise putting such seed in water made almost scalding heat, or about 150 degrees to 160 degrees, for a few minutes at a time, withdrawing the seeds and repeating the scalding until the seed shows signs of swelling. Then plant such seeds, and if the soil is warm the plants will be up as quickly as the weeds. Onion seed may be treated the same way. Some kinds of plants which come up very small and are not conspicuous can be cultivated quite near to the rows by dropping a few radish seed in the row where the more valuable crop is grown. The radish will show sooner than almost any other garden plant, and what radish are thus grown can be pulled out and used by the time the other crop can be seen to hoe closely to it.

The Leaf of Young Grain.

There is much difference in the breadth, size and color of leaf in young grain as it comes up. It is partly dependent on the character of the seed, as the plant sends up its first leaves mainly from the starchy matter which encloses the germ and which the germ uses until it is able to put forth roots into the soil. Barley being larger and heavier than oats has always a broader leaf, though if oats are sown on rich land and somewhat late they will come up with a leaf that looks like barley. But this rank growth early is not regarded favorably by the cultivator, for he knows that it is liable to be followed by rust of stalk or grain later in the season. Harrowing grain that comes up with too small and thin a leaf bruises these first leaves, and as it also stimulates root growth it causes the plant to send up new shoots with much broader leaves. This dries out the soil, thus preventing the excessive growth later that invites rust.

Barn Truss.

I send sketch of barn bent. I think any one who will give it a thorough study will decide that it is strong, self-supporting, and no danger of spreading. The purlines and some other timbers are drawn out of proportion to the rest, so that the construction can be understood. The plan is original with myself, and has not been practically tested, but I am confident that there is no possible chance for an out-



NEW BARN PLAN.

ward thrust, for the long brace, A, A, passing through between the timbers forming the purline and on through the short tie B, and through the double studding C, will forever hold the barn from giving out. The purlines may run from the ground sills, passing between the cross sill D, on up to the purline plate, showing the mode of construction at E. The dotted collar beam at F F is to be fastened to the inside rafters on a level with the cross at G, in order to fasten the rangers for a track to run a hay fork. The lower end of purline at H H is to be cut so as to fit over the sill, and showing spikes to be driven. This frame can be made to resist an indefinite amount of pressure.—J. H. Fisher, in Ohio Farmer.

Migration of Insects.

In the Scientific American, Prof. Holden gives some interesting observations on the migrations of insects. Once in the San Gabriel Valley of California he saw a flight of yellow butterflies which passed continuously for three or four days to the northeast. For sixteen square miles the column moved, and one could not look out doors without seeing the fluttering bits of yellow in the air. Yellow butterflies are famous for their mysterious migrations, and sometimes out at sea they will cover the decks and riggings of ships.

Peach Twig Borer.

A correspondent of the Michigan Farmer reports a new enemy on his peach trees. It is a borer, which eats its way into the twigs near the end of the season's growth, killing the twig at that point. Then it burrows in the tree forks and remains until spring, when it enters on a new campaign. It has never been seen until last year, and it is hoped that the severity of the winter, which killed peach trees in so many places, will also make an end of this new enemy to the tree.

Good Harness Oil.

First melt three pounds of tallow at a slow heat, without it frizzling or boiling, and then, having mixed sufficient lampblack with one pound of neatsfoot oil, slowly pour that into the melted fat. Remove the vessel from the fire and stir the compound until cold, so as to prevent separation of the oil and fat.

THE BATTLE-FIELDS.

OLD SOLDIERS TALK OVER ARMY EXPERIENCES.

The Blue and the Gray Review Incidents of the Late War, and in a Graphic and Interesting Manner Tell of Camp, March and Battle.

It was a year or two before the war that an Illinois boy sought and was given a lower-round position in a Chicago railway office. He didn't remain on that round so very long. His superior detected good metal in him and promotion followed quite rapidly. The fife and drum beats of 1861 caught his ear, heart and mind, but the enlisting officer said: "You will have to stay with your mother a while longer; you are too small and too young for a soldier." The answer of the enlisting officer was the signal for an outbreak of an incipient rebellion in the breast of the young railroader; but he held his peace. He would try another officer at the first opportunity. The next trial was no more successful, but the officer was more considerate. He told the boy to wait for the next war.

In August, 1862, the young railroader was as proud a man as there was in Company A, Seventy-second Illinois infantry, as he raised his hand and swore to serve his country as a soldier for three years or during the war. That day he was made a corporal. Soon after going South the colonel, who had been watching the young fellow, called him to headquarters and said: "Young man, I want you for commissary sergeant." The bashful boy said he was ready for any duty he could perform, and the next day he wore the stripes of a member of the regimental staff, third in rank on that staff.

The Seventy-second Illinois had been sent into a bad part of Mississippi on an important mission. In passing I may be permitted to say that during those four years of war there were not many parts of Mississippi that it was good for Yankee soldiers to appear in unless they had their guns with them. No State at the South plunged more heartily into the rebellion than Mississippi, the State from which President Jefferson Davis had been sent to the Mexican war as colonel of the Second infantry, to the United States Senate and to President Pierce's cabinet as Secretary of War. The Seventy-second had gone in light marching order, with scant rations, and no wagon train was allowed. It was expected that results would follow the raid so that the trains could soon follow with necessary supplies. But, as was often the case, results were lacking. Rations ran out. The men were hungry, the wagon train more than twenty miles away, and it must encounter much danger of capture if an attempt is made to reach the troops. Our railroad boy, with the train, where he belonged, knew that something was wrong when orders did not come for him the second day to join the regiment with rations. The regimental quartermaster was absent, so he called upon the brigade quartermaster and told him that the Seventy-second was out of rations and that he wanted to load some wagons and go to its relief.

"Has your colonel sent back for rations—has he ordered you to take rations to the men?" asked the captain and A. Q. M.

"No, sir."

"Hadn't you better wait for orders?"

"I think not, sir. I know that the boys have no rations. Maybe the reason why no orders have reached us is because the enemy has captured the messenger."

"Do you suppose that the enemy is between here and where your regiment is?"

"I think he is, sir."

"Do you think you can break through his lines with a wagon-train charge?"

"I would like to try, sir. I am ready to risk almost anything rather than have the boys go hungry much longer."

"All right. Load four days' rations and go to your regiment. Start early to-morrow morning."

"Can't I start to-night, sir? I can reach the regiment by morning, if nothing happens."

"Have your own way."

Within half an hour the young commissary sergeant had called upon the commissary captain, or captain and A. C. S.—assistant commissary of subsistence—secured a stock of hardtack, pork, fresh beef, coffee, sugar, beans, vinegar and salt, and just as it was growing dark he started on his dangerous mission—"a fool's errand," as the quartermaster remarked. The sergeant, full of anxiety for his hungry comrades, rode ahead of the wagons with a navy revolver by his side, expecting any moment that he would be challenged. Fortune smiled, "fairly laughed," to use his own words, and the night ride was without exciting events; and just as the sun was rising he swept into camp with wagon-loads of uncooked breakfast. He had driven about twenty-five miles, nearly the whole distance through the enemy's country.

"Who gave you orders to bring rations?" asked the colonel.

"Nobody; I got permission."

"Report to me when we get to camp."

The sergeant reported and the colonel said: "Well, I guess we can get along without you for commissary sergeant any longer. Here is your discharge from that position."

The poor boy was pretty nearly broken-hearted until he opened the envelope and found a warrant as sergeant major. It was not long before he was made adjutant of the regiment, and when the war was over they told him he was a brevet major. He was one of the best soldiers in the regiment, was Major George H. Heafford, now well known as the St. Paul's general passenger agent.—J. A. Watrous, in Chicago Times-Herald.

Drummer Boy Was a Hero.

One of the most pathetic incidents of the civil war, says a veteran, was the killing of the little drummer boy of our regiment at Wilson's Creek.

It was only a few days before we received orders to join Gen. Lyon on his march to what was then called Oak Hill that the drummer of one of our companies was taken sick. The night before we started a negro came within our lines, was arrested and taken to headquarters. He had come for the commendable purpose of telling us of a drummer boy who was willing to enlist. The offer was accepted, and the darky was told to send the drummer on to camp the next morning.

At reveille the lad, who was only 12 years old, appeared. A drum was brought in and the boy was set to manipulate it. The fifer, an unusually tall, stalwart fellow, was also sent for, and he was astonished at the small mite of humanity calling itself a drummer boy. But the youngster insisted that he could drum after any tune the fifer might strike up, saying that he had drummed for Captain Hill of Tennessee.

So the two set to work and never better or more martial music was made in the company.

An hour afterward we were on the march, and before the day was over Eddie was the favorite of every man in the company. The juciest melons and the sweetest peaches that the foragers brought in on the way went to Eddie, and during that long march from Rolla to Springfield, little Eddie's legs dangled more than once over the shoulders of the tall, good-natured fifer.

Part of our company during the fight at Wilson's Creek was stationed with Totten's battery, while the rest marched down into a deep ravine with an Illinois regiment. The enemy was hidden in this ravine, and the battery soon drove him to the hillsides with the loss, however, of Gen. Lyon. The main force of our army fell back upon Springfield, and the First Iowa and two Missouri companies remained in the spot to cover the retreat at daybreak. One of our guards was placed on a high eminence, from which a good look-out over the entire ravine could be had. The spot was one of the dreariest in the whole surrounding country. With the first streaks of dawn chasing away the hideous noises of the night the guard heard the beating of a drum. The man on the eminence was astonished, fearing that it was the reveille of the enemy, who was nearer than he suspected. But as he listened the sounds grew familiar and he little doubted that it was Eddie beating his drum. The guard was about to desert his post to hunt up the lad, when the officer of the guard with two soldiers approached. One of the men rushed down the ravine and soon found the little fellow with his head leaning against the trunk of an old tree, his little form almost entirely covered by thick underbrush. The drum hung on the limb of a blackberry bush within his reach, and the little lad was belaboring the top with sticks.

"Give me a drink," was the first thing Eddie said. The man hurried to the creek to fill his canteen. When he returned he discovered that the boy's legs had been shot off by a shell.

"I feel pretty badly, but I don't think I'm going to die," said the brave lad. "That fellow yonder told me I needn't ——"

Near him in the tall grass the soldier discovered another figure. He wore a sergeant's uniform—the gray cloth of the Confederacy. A shot through the body had mortally wounded him. Soon after he had fallen the little Tennessee drummer boy dropped under the tree. The hero in gray knew that he must die, and seeing the condition of the drummer lad he took off his buckskin suspenders, crawled up to the battered youngster and corded his legs below the knee. The soldier who found him loaded the boy on his shoulders and tenderly carried him back to the camp. When he laid his small burden down, little Eddie was dead.

Good Price for Pastry.

"One of the pleasantest recollections I have of my army experience was of a little transaction on a pretty June day when I sold a plain old custard pie for the gentle sum of $100. I had disposed of all my stock except this one old pie, that had been around with me all day. As I was coming across the Long bridge I met a Jersey artilleryman. He stopped me and asked me if I had any pies. At first I was tempted to tell him I hadn't. But he lifted the lid of my big basket and saw the one pie. Then he rammed his hand deep into his trousers pocket and pulled out a bill. Grabbing the pie with one hand he shoved the bill at me and went on. I called out that there was some change coming to him.

"'Oh, go to —— with your change,' was all the politeness I got for my honesty, and I took up my basket and went on.

"I hadn't gone far before I looked at the bill, which up to that time I had supposed to be a dollar note. To my surprise it was a $100 bill of the Allegheny Bank of Cumberland. That was in the last days of the wildcat system of banking. I thought I had been fooled with some worthless paper, but reconciled myself with the thought that the pie wasn't any better than the bill. In fact, I was sure the pie was bad and there was yet some doubt about the bill. The next day I took it to the bank, and, to my everlasting surprise, they cashed it for $98.60. The Jerseyman had evidently won it at poker, and did not know its value. He probably thought he was playing a good joke on me."—Washington Star.

"Wat duz yer mammy give yer when yer kitches a cold, Jimmie?" "A lickin'."—Cleveland Plain Dealer.

"Telephone girls ought to make good wives." "Why?" "They get in the habit of not speaking unless they are spoken to."

She—"What is meant by the saying that a man is convalescing?" He—"That he has outwitted his doctor, I suppose."—Topeka Capital.

"The single-scull race!" exclaimed an old lady, as she laid down the paper. "My gracious! I didn't know there was a race of men with double sculls!"

Baggs—"It is said that Dame Fortune knocks once at every man's door." Jaggs—"Well, it was her daughter, Miss Fortune, who called on me."—Boston Traveler.

McLuberty—Oi'd loike to take a trip around the wurruld. Mrs. McLubberty—Sure, thot wud be foine! McLubberty—Yis; but t'ink av the cost av gittin' home ag'in!—Puck.

"What is firmness, father?" "Firmness, my boy, is obstinacy in ourselves." "And what is obstinacy?" "Obstinacy is firmness in somebody else."—Chicago Evening Post.

Osmond—"Well, thank heaven, you have never seen me run after people who have money." Desmond—"No; but I've seen people run after you because you didn't have money."—Life.

"I had supposed, until yesterday, doctor, that the days of the bleeding of patients were past." "And so they are. But what changed your mind?" "The bill you sent me."—Harper's Weekly.

Maud—"I think it perfectly disgraceful! Her fiance hadn't been dead six weeks when she married the other man." Mabel—"But you know her trousseau would have soon gone out of fashion."—Bazar.

"You ought, like us, to have holidays in honor of your great men," said the Russian beauty. "But in the American year," said the major, "there are only three hundred and sixty-five days."—Philadelphia Press.

She—"Do you know there's something about you which reminds me of Cervera's fleet while it was bottled up at Santiago?" He—"Indeed! What is it?" She—"Your mustache. It's such a long time in coming out."—Chicago News.

Old Lady—"Now, porter, you're quite sure you've put all my luggage in?—the big portmanteau and——" Porter—"All right, mum." Old Lady—"And you're certain I've not left anything behind?" Porter—"No, mum, not even a copper."—Tit Bits.

Bridget—"There's a man in the parlor wants to see you, sir." Mr. Ardup—"I'll be there in a minute. Ask him to take a chair." Bridget—"Sure, sir, he says he's going to take all the furniture. He's from the installment company."—Brooklyn Life.

Patent medicine proprietor—Hereafter all testimonials must be accompanied by orders for at least half a dozen bottles of medicine. Clerk—Yes, sir. Patent medicine proprietor—If these people want to see their names in print they ought to pay for it.—Puck.

"What did Colonel Stilwell say about the brandied peaches we sent to cheer his convalescence?" "He said he was afraid he wasn't strong enough to eat the fruit," replied the little girl, "but that he appreciated the spirit in which it was sent."—Washington Star.

Mr. Wigsby—See here, my love, there is some mistake; the baggage delivery man has left seven trunks on our front porch. Mrs. Wigsby (who has just returned from the mountains)—Imbecile! Don't you understand? He's coming back after dark for the extra five.—Cleveland Plain Dealer.

Wife (with a determined air)—I want to see that letter. Husband—What letter? Wife—That one you just opened. I know by the handwriting it is from a woman, and you turned pale when you read it. I will see it, sir! Give it to me, sir! Husband—Here it is. It's your milliner's bill.—Tit-Bits.

"You think this man had been drinking," said the cross-examining attorney; "did he appear to have more than he could carry." "I'll not say that," replied the cautious witness; "but I do think that he would have been wiser to have gone twice after it."—Detroit Free Press.

Uncle (to nephew playing the game of war with a companion of his own age)—If you take the fortress within a quarter of an hour I'll give you a dime. Youngster (a minute later)—Uncle, the fortress is taken; now let me have the dime. Uncle—How did you manage it so quickly? Youngster—I offered the besieged a nickel and they capitulated.

Fashionable lady member of a parish church (to poor old woman)—"We have got a fine new organ now into our church, and it will be played the first time there on Sunday next. Will you come and hear it?" "Oh, na, na, ma'am," was the reply, "I dinna trouble mysel' wi' the like o' thae things. Ye see I canna dance."

"You will observe," said a teacher, "that the higher the altitude attained, the colder the temperature becomes." "But isn't it warmer up in the mountains?" asked the youth at the foot of the class. "Certainly not," replied the professor; "why do you think it would be warmer there?" "I thought the atmosphere was heated by the mountain ranges," answered the youngster.—Chicago News.

What Was Lacking.

Pete—I heah yo's bin admitted to full communion wif de Fust Baptist Chu'ch?

Abe (sadly)—Well, no; not exac'ly—dey won't let me take up de collection yit.—Puck.

His Acknowledgment.

"You admit," said the Judge, severely, "that you married these two women?"

"I did," said the unabashed bigamist. "They are my better two-thirds."—Puck.

Overheard.

People who, in public places, discuss the affairs of others seldom—unfortunately—learn the salutary lesson conveyed to two young women whom the Cleveland Plain Dealer pictures as "hanging to straps in the street car and talking as fast as their tongues could go."

"By the way," exclaimed the one in the military cape, "did you know that Charley Hawkins was engaged?"

The woman in the gray hat gave an exclamation of surprise.

"Why, no!" she cried. "Who to?"

"Oh, nobody that you know, or that anybody else knows, for that matter. She works in a store, or something of the sort. I do think Charley's mother is real good about it, for she declares she likes the girl—says she is sweet and pretty, and all that, but I believe she does it just to hide her real feelings."

The woman in the gray hat nodded sagely.

"I shouldn't wonder at all," she announced. "I had heard he was going with that girl. Mabel Thompson, isn't it? But of course I never thought that there was anything in it. I suppose they'll live on our street, because Charley owns a house there; but I'll tell all the neighbors who she is—— Look out, Louisa, the girl beside you's going to get up! Hurry and take her seat."

Then, in a lower whisper, "Rather stylish-looking girl, isn't she? I'd like to know who she is."

The stranger stopped, and turned with flashing eyes. "I don't believe you would," she said, icily, "but I've no objection to telling you. My name is Mabel Thompso

Melancholy Thought.

When a man really gives his thoughts up chiefly to eatables and drinkables, he generally ceases to think of anything else after a while. It is related, in an old book on French cookery, that Fontenelle, a French author of the early part of the eighteenth century belonging to the school of the precieuses or literary exquisites, was found one beautiful morning lying at ease on the slope of a hill.

In the valley was a large flock of sheep. They skipped about daintily, waiting for their guardian to take them home. A friend of Fontenelle surprised him gazing meditatively upon these sheep.

"Aha!" said the friend; "the amiable philosopher ponders without doubt upon the vicissitudes of life."

"Y-yes," said Fontenelle. "I had been carefully looking over this flock, and I said to my self, 'It is possible that among these two hundred sheep there is not one tender leg of mutton!'"

Salt Mines Worked Since 1240.

The salt mines of Wieliczka, near Cracow, Poland, were mentioned in 1044, and have been worked since 1240. The first map of the mines was made in 1638 by Martin German, a Swedish mine surveyor. The eight shafts now in existence are from 207 to 985 feet deep, and the length of the levels now open is 345,000 feet, with 135,500 feet of underground tram lines. Between 1772 and 1892 about three million cubic yards have been excavated for the extraction of salt. Machine drills are now used and compressed powder is employed in blasting; about 1,187 pounds of powder are used per ton of salt produced. The present levels are seven and one-quarter feet high by six and one-quarter feet wide.

Early Mails.

The first postoffice was opened in Paris in 1642, in England in 1581, in America in 1710.