



Cultivation of Corn.

When corn is planted after the first week in June the land needs more attention than when prepared earlier. If plowed early the weeds will have made an appearance, which is an advantage, as they can be destroyed before the corn is planted; but the late corn will be more easily injured by drought than that which has made an earlier start. The crop should be cultivated after every rain, so as to prevent loss of moisture. Another point is to thin out the plants if they are too thick. It would be difficult to induce many farmers to "thin out" their corn, as they would claim that the land, having been manured, was capable of providing for as many stalks in the hills as made their appearance; it is not a matter of plant food with late corn, however, but moisture. When too many stalks are close together there is a struggle for existence; some become weeds to the others, and in the end only the most vigorous make growth, and yield grain

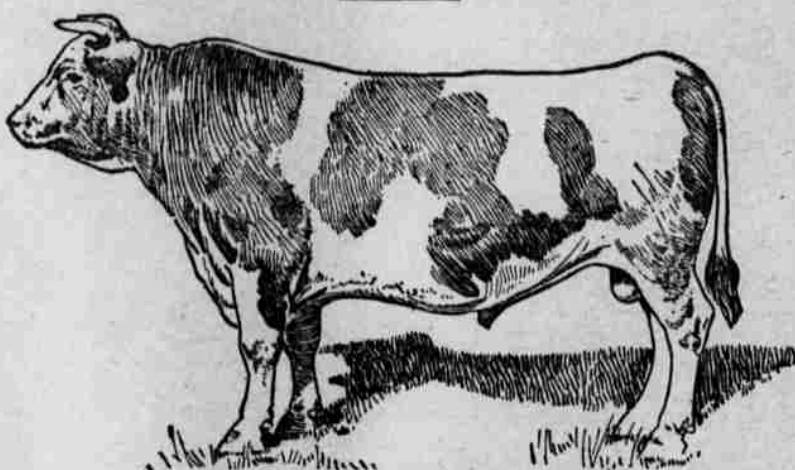
Many Courses in Agriculture.

A total of eighty-seven different courses of study in the long and middle courses in agriculture at the College of Agriculture of the University of Wisconsin is shown in the new catalogue of the university just issued. These do not include the work in the nine other special departments, such as home economics, the short course, three dairy courses, the farmers' course, farmers' institutes, home-making course, and experimental station work. These eighty-seven courses include thirteen each in soils and agricultural chemistry, twelve each in animal husbandry and horticulture, eleven in dairy husbandry, eight in agricultural engineering, seven in bacteriology, five each in agricultural economics and agronomy, and one in agricultural journalism.

Mottled Butter.

Streaky or mottled butter may be caused by the salt, or it may be due to the working of the butter. The salt is

CHAMPION HOLSTEIN BULL.

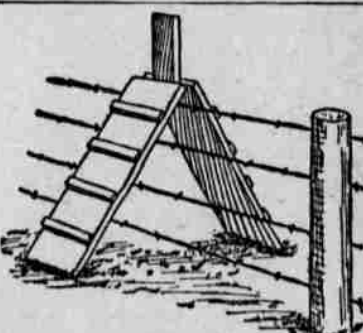


EXHIBITED AT THE ILLINOIS STATE FAIR, 1908.

up to the average. It is, therefore, better to remove every stalk that shows lack of growth, and if the heroic remedy of reducing the stalks to two in a hill could be tried on a plot by way of experiment, the result would be satisfactory, as well as convince farmers that there is nothing gained by endeavoring to grow three or four plants in a space which only two should occupy. If rainfall continues to be abundant, as has been the case for June, there will be no necessity for reducing the number of plants.

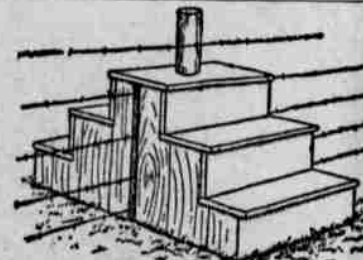
Crossing a Barbed Wire Fence.

Two stout boards are nailed together, as shown in Fig. 1, and may be used for crossing a barbed wire fence. They should be 10 or 12 inches



INVERTED V STYLE.

wide and 2 feet longer than the fence is high to give the desired spread. Firmly nail four cleats on each board and fasten a short board between the two to assist in getting over the fence.



STEPS TO GO OVER THE FENCE.

Another device somewhat more elaborate is a double set of steps, shown in Fig. 2. Women and children will have no difficulty in using this, but might find it inconvenient to get over the narrow board.—Farm and Home.

Rye Pasture.

Rye pasture for cows makes the milk have a bad taste or flavor unless great care is taken in the matter of pasturing. If the cows are left on all day the milk will almost certainly be off flavor, strong and bitter. The only safe way seems to be to turn the cows in for two or three hours right after they are milked, then keep them off the rye until the next milking. Even this precaution may leave a slight taint in the milk and appear in the cream and butter.—Denver Field and Farm.

Sore Shoulders on Horses.

The hide and flesh of a young horse are more tender than those of an old work horse. If the shoulders of the young horse are allowed to become sore during the first season's work it is likely that they will be sore or tender all the rest of the animal's life. If the young horse passes through the first season without injury the shoulders become toughened and with good treatment are likely never to become sore.—Field and Farm.



"Fifty miles an hour! Are you brave?" She (swallowing another pint of dust)—Yes, dear. I'm full of grit.—Chicago News.

Miss Rinkels—Father always gives me a book on my birthday. Miss Tartley—What a fine library you must have.—Town Topics.

Doctor—You have some sort of poison in your system. Patient—Shouldn't wonder. What was that stuff you gave me?—New York Sun.

She—Mother never leaves the house. She simply hates visiting. He (with sudden decision)—Will you be mine, darling?—Boston Transcript.

"Your town enjoys the reputation of being the home of two Congressmen, doesn't it?" "No, it doesn't enjoy it—it has it!"—New York Herald.

"Do you know anything about flirting?" "No," he replied sadly. "I thought I did, but when I tried it the girl married me."—Boston Globe.

Ethel—Didn't it seem an age from the time you were engaged till you got married? Maud—Yes, but Jack and I managed to squeeze through it.—The Tatler.

He—Wonder why it is they always speak of the "blushing bride?" She—Nothing very remarkable about it, considering the kind of men most women marry.—Illustrated Bits.

Clara—That man who just passed was an old flame of mine. Kate—Indeed! What happened between you? Clara—Oh, he flared up one day and went out.—Boston Transcript.

He—And you won't go with me? She—No, I don't like your style. He—Pooh! You're as full of airs as a street piano. She—Maybe, but I don't go with a crank.—Cleveland Leader.

Father (angrily)—If my son marries that actress I shall cut him off absolutely, and you can tell him so. Legal Adviser—I know a better plan than that—tell the girl.—The Law Journal.

"I suppose your wife was tickled to death at your raise in salary?" "She will be." "Haven't you told her yet?" "No; I thought I would enjoy myself for a couple of weeks first."—Nashville American.

"You go around borrowing money, and yet you seem to be prosperous." "I am." "How do you manage it?" "My motto is, 'Always put off till tomorrow those you have done to-day.'"—Cleveland Leader.

The Employer—Young man, I don't see how, with your salary, you can afford to smoke such expensive cigars. The Employee—You're right, sir—I can't; I ought to have a bigger salary.—Cleveland Leader.

"Your husband wor a good man," declared the sympathetic Mrs. Casey to the bereaved widow. "He wor!" exclaimed Mrs. Murphy, dashing the tears from her eyes. "No two policemen cud handle him."—Tit-Bits.

"What sort of an after-dinner speaker is Bliggins?" "One of the kind who start in by saying they didn't expect to be called on, and then proceed to demonstrate that they can't be called off."—Washington Star.

Riggs—I understand that you encourage your son to practice on the cornet. Griggs—Yes, sir. He's only been playing two months, but to-day I bought the house next door to me for one-half of its value.—Brooklyn Eagle.

Wife—Billy, dear, I stitched up the hole in your trousers' pocket last night after you had gone to bed. Now, am I not a thoughtful little wife? Husband—H'm; how did you know there was a hole in my pocket?—New York Times.

Practical Father—Has that young man who wants to marry you got any money? Romantic Miss—Money! He gave me a cluster diamond ring studded with pearls. Practical Father—Yes, I know. But has he any money left?—Stray Stories.

Patient—Are you sure, doctor, that this health food that you have recommended is nourishing? Doctor—Sure? Why, I know it. The man who introduced that health food not only lives, but supports a large family on it.—Stray Stories.

"Do you ever lose that umbrella of yours?" asked the maiden. "No, I don't," replied the man, sternly; "the person who takes that umbrella will have to take me." "Do I understand that to be a proposal of marriage or a threat?"—Yonkers Statesman.

Autoist (who has paid boy to bring assistance)—Did you give the farmer my message, boy? Boy—Yep; I told him ther' wuz four autobeeblers stuck in a driff, an' cuddent git out. Autoist—What did he say? Boy—He said, "Hooray" an' gimme another quarter.—Life.

WHY LOCKS ARE FAVORED FOR THE PANAMA CANAL.



ENGINEERING NEWS, the leading technical publication in the United States devoted to the engineering profession, reviews at length the Panama canal situation and tells why, in its opinion, the lock plan is preferable for the canal rather than the sea-level idea. The article is written for the general public as well as for engineers, and gives in clear, simple language the essential facts in the controversy and the main points of the technical questions involved. That the decision in favor of a lock canal, three years ago was made "in conformity with the weight of the best engineering opinion" is the assurance given at the opening of the review.

Engineering News asserts that no American engineer of high professional standing has lent his name to the campaign against the lock plan of construction. The review proceeds to a consideration of the report of the board of engineers, which made an examination of conditions on the isthmus, and takes up one by one the arguments against the lock type of canal. For construction alone the engineers on the isthmus "make an estimate of over \$100,000,000 as the minimum excess for cost of a sea level over the lock canal," it is stated. This does not include carrying on the work by the government and sanitation, amounting to perhaps \$3,000,000 annually in addition. There are other additional cost charges and physical problems connected with the proposed change which amount to a formidable aggregate.

Dwelling upon physical problems in the way of constructing the canal, Engineering News points out that, although the cutting of the forty-mile neck connecting the oceans seems a simple matter to the layman, there are unsolved difficulties in the way of a sea-level canal. The danger of wash along the sides of a long stretch of canal through soft quagmires is dwelt upon, when considered with relation to a rainfall of twenty inches or more in one month. Parts of the old French ditch, it is said, actually filled with silt and mud through such causes.

Three virtual canals would be necessary, the review says, should a sea-level route be chosen—one for the canal proper and two others, one on either side, for diversion of the flood waters. That a sea-level canal is possible, given unlimited money for construction and time, is admitted, but it is argued that such a construction would never be profitable.

Concerning the Gatun lake and dam proposition, the review says: "We can testify from actual personal observation and study of the dam site and of the borings and pits that the Gatun dam will be as safe and permanent as any structure ever reared by man. Yet it is needless for us to say this in view of the emphatic approval of the dam by the board of engineers which has visited the isthmus, and which includes the highest authorities on dam construction that could be found anywhere."

Turning to a consideration of the locks themselves, the Engineering News writer points out that the "sea-level agitation is a fallacy" in assuming that there is something objectionable or dangerous to a vessel in passing through a canal lock. "The delay," it is stated, "of a couple of hours or so required to pass through the locks is no argument against the lock system, for this delay—in itself a mere trifle in the course of a voyage lasting itself two weeks or more—will be more than made up by the faster time which ships can make when sailing through the broad open channels of Lake Gatun, as compared with the necessarily slow rate of sailing through a sea-level canal."

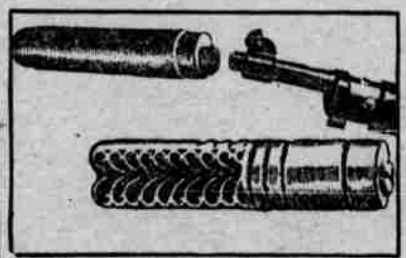
As for the danger in a lock canal, the review points out that the Manchester canal has four locks and the Sault Ste. Marie canal passes through the greatest lock in the world the greatest canal traffic known. Elaborate provision has been made in the designs for the Panama locks against accident, and the locks indeed will be in duplicate, so as to make one available in case of damage to the other.

Concerning the possibility of the lock canal being damaged by earthquake, the Engineering News points to the fact that some pieces of masonry in Panama City have been standing since the eighteenth century unharmed by quakes. It is admitted that earthquake shocks are possible in the canal zone, but it is shown also that any shock severe enough to damage the locks probably would damage also the great Gamboa dam, an essential feature of a sea-level canal. Other arguments are brought forward going to show that the lock canal will not only pass all the traffic for which it is designed, but that there will be actual gains in carrying out the lock project.

MAKES THE GUN SILENT.

Maxim's Rifle Muffler, Showing Turbine Vents, and How Attached.

Patents having been obtained on it in twenty-four countries, Hiram Percy Maxim gave a demonstration and explanation yesterday of his silencing device for rifles before a large number of representatives of newspaper and scientific publications. By the use of a sandbox target the inventor made a series of experiments by firing a variety of rifles, ranging in power from a twenty-two-caliber up to the new



MAXIM'S RIFLE MUFFLER.

Springfield thirty-caliber military rifle. They were fired both with and without the "silencer," and the spectators—or perhaps it might be better to say auditors—marveled at the effect of the little device. It is said scientific tests show that 90 per cent of the noise of explosion is eliminated.

The "silencer" is a metal tube about seven inches long and an inch and a quarter in diameter, which can be fastened quickly to the end of a rifle barrel which has been provided with a thread for that purpose. Hitherto those who did not know Mr. Maxim's secret had an idea there was a valve in the "silencer" which stopped the rapid escape of the gases from the end of the barrel. It is these gases which cause the noise in firing. The illustration pictures the rifle muffler, how it is attached to the gun, and also gives a cross section of the muffler showing the chambers which catch and whirl the sound waves.

Mr. Maxim explained that the principle used in stopping or slowing up the gases is that of a negative turbine, and the process, in effect, is the re-

verse of that used in driving boats with a turbine engine. There is a hole through the center of the "silencer" large enough to permit the easy passage of the bullet. As for the gases, they are given a rapid rotary motion by the device, which prevents their escape until this motion has died down.

Mr. Maxim used the simple illustration of a wash basin. By giving a rapid rotary motion to the water it is prevented from escaping through the vent at the bottom until the motion slackens, when it escapes slowly. While the water is revolving rapidly the vent is open so that a small object would be able to pass through freely without being retarded in the slightest degree. The invention was passed around the room complete and in cross section for inspection.

A Sponge That Works.

"Here is a clever notion—a fog bell," said an old New England fisherman.

On a bleak, gray afternoon they stood at the seashore—the old man and his city cousin from Boston. A great bell hung from a scaffold, and under a metal cover hung a great sponge.

"This here machinery is wound up regular," the fisherman explained, "and this here sponge is kept under cover so as the rain can't get at it. In dry weather, natch'rally, the sponge is dry and light; in foggy, though, it gets heavy with fog satch'rations, just heavy enough for to press down the lever that starts the machinery a-going. Then, dingdong, dingdong, sounds the bell in the fog, savin' many a fisherman from wreck on this rock bound coast."

Cheering Her.

Macdougall (to his new fourth wife)—The meenster doesn't approve o' my marryin' again, an' sae young a wife too! But, as I tellt him, I canna be aye buryin' buryin'.—Punch.

Most men would be glad to pay a large income tax for the sake of having that kind of an income.