

### FIND HOW LOCUST BREATHES

Scientist With Much Trouble Makes a More or Less Valuable Contribution to Science.

Dr. Johann Regen, a professor of natural history in Vienna, has constructed a delicate instrument that registers and measures the respiration of insects. The apparatus is composed of a crystal tube with an aperture in the end. Imprisoned in this, the locust, in the effort to extricate himself, turns over, bringing his thorax immediately under a needle having a ball in the point. In this way, thanks to the ascending and descending movement of the needle working over a lever, the movements of the thorax are registered on a plate or metal leaf. It is thus possible to study attentively the quickness and length of each breath of the insect, and what is more important, the strength and action. By this means it has been ascertained that insects respire in a manner directly the reverse of human beings. We are required to put the necessary strength into the inspiration, while expelling it is largely automatic. The locust, on the other hand, inhales automatically, but expels with more trouble.—Harper's Weekly.

### GOOD WORK UNDER HANDICAP

Harriet Beecher Stowe's Literary Productions Put Out in Face of Some-what Adverse Conditions.

Although the best work is often produced in the face of difficulties, the obstacles may sometimes be so great as to prevent work altogether. Harriet Beecher Stowe, for example, was so crowded by her household that she wrote little till she was forty. She never gave up trying, however, and her sister Catherine, who sometimes took dictation in the Stowe kitchen, has left some amusing accounts of Harriet's efforts at composition. One of these accounts is quoted in "Heroines of Modern Progress."

Harriet brushed the floor off her apron and sat down for a moment in a muslin. Then she dictated as follows:

"I know my duty to my children. I see the hour must come. You must take them, Henry; they are my last earthly comfort!"

"Ma'am, what shall I do with those eggshells?" interrupted Mina, the servant.

"Put them in the pail by you," answered Harriet.

"They are my last earthly comfort!" said L. "What next?"

"You must take them away. It may be—perhaps it may be—that I shall soon follow, but the breaking heart of a mother still pleads, "A little longer, a little longer!"

"How much longer must the gingerbread stay in?" asked Mina.

"Five minutes," said Harriet.

"A little longer, a little longer!" I repeated, in a dolorous tone, and we burst into a laugh.—Youth's Companion.

### HAS THE WORLD DISTANCED

United States Produces Nearly One-Half of All the Coal That is Taken From the Earth.

The total coal production of four states—Alabama, Maryland, Pennsylvania and West Virginia—in 1910 amounted to \$33,500,000 tons. What this means will be understood when it is stated that the total output for the whole United Kingdom in the same year was 264,300,000 tons. In 1900 the total output for the world was 768,000,000 tons; for the United Kingdom, 225,175,000 tons; for the United States, 269,075,000 tons, and for the four states named above it was 114,200,000 tons. Today the world's output has risen to 1,164,000,000 tons. The United Kingdom produces 264,300,000 tons, and in the United States 500,000,000 tons; from which it will be seen that the output from the United States is nearly one-half that of the world's world.

### BARRED AND BARREN.

What would father say? She had fallen in love with an impecunious baron, and the question of his banking account versus pa was being settled.

Mother did not know much about the matter, but dropping Lin just as father and daughter were discussing this vast problem of matrimony.

"But what is he born of?" asked mother.

For a moment father and daughter looked at one another. The nobleman was of German persuasion, with a totally unpronounceable name.

"Oh," ejaculated father, getting a happy inspiration, "he's barren of funds—that's what he is!"

And the matter was declared "off."

### ALL MIXED UP.

"This man knows himself to be himself at times. At other times he imagines himself to be Julius Caesar, Napoleon Bonaparte, and so on. What do you make of it?"

"Looks like a case of scrambled eggs to me," responded the other eminent scientist.

### REGRETTABLE PART.

"I'm afraid Jobkins is running around too much at night."

"Oh, it is 'running around that hurts him, but the places where he stops."

### AN EXAMPLE.

Professor—Mr. Jones, will you kindly give me an example of reproductive art?

Jones—A hair restorer.—Judge.

### PATERNAL WISDOM.

"I don't like that man, pa."

"Go slow, son. You can't always tell what kind of heart beats behind a fancy vest."

### ITS CONDITION.

"There is one thing contradictory about soft coal."

"What's that?"

"It's a hard case."

### OLD GITLEMAN IS GAY.

"I presu a young Gadder follows in his f ther's footsteps?"

"Yes; rig; t through the swinging doors."

### USUAL WAY



"Why didn't the chief of police investigate the matter before?"

"How should you expect him to know anything until he sees it in the papers?"

### REAL VILLAIN.

"Are you the villain in this troupe?" asked the baggageman, who was handling theatrical trunks.

"No," replied the youth with black, curly hair. "I used to be, but the real villain is the treasurer of the company, and by this time he must be about 500 miles on his way to somewhere else."

### IN THE NUTTERY.

Visitor—What's wrong with the man in that cell?

Attendant—He's a doughnut.

"You mean that is his hallucination?"

"No; he really is. He went crazy on the subject of money."—Judge.

### DOESN'T SEEM MUCH.

Belle—It is said that it would take 27,000 spiders to produce one pound of a web.

Bethel—The idea! And yet people try to tell us that spiders are industrious!

### EVIDENCE ENOUGH.

"How do you know you have been farthest north?"

"I got where I couldn't buy a postcard. Sure I've been."

### CORRECTION.

"Fine night," said Smithers, glancing at the heavens?"

"No," replied the Boston girl, "you mean infinite."—Harper's Bazar.

### DOESN'T WORK THERE.

"Bey, ma, who said, 'Neither a borrower nor a lender be'?"

"Some person who'd never lived in the suburbs, Tommie."—Life.

### HOW-PUBLICLY LIKED-HIM.

Friend—The public, will miss you now you have left the stage.

Actor—That's why I left. I dislike being hit.—London Standard.

## HOLDEN PLANS TO PUT ALFALFA ON EVERY FARM

### Plan to Unite All Interests in Nation-Wide Campaign for the General Growing of Alfalfa.

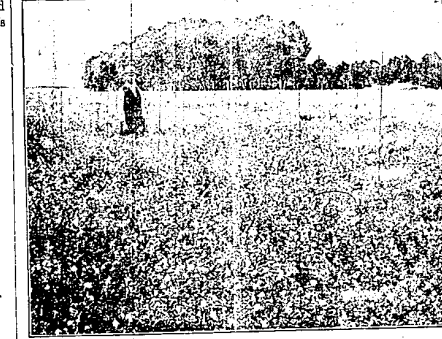
#### Extension Department to Aid Any Community Interested in Conducting Campaign to Encourage the Growing of Alfalfa—No More Difficult to Grow Than Clover and Gives Double the Yield

Alfalfa Automobile Trains Important Feature of the Work—Schedules to Be Arranged and Meetings to Be Held at Farm Homes—Prominent Speakers to Accompany Each Alfalfa Train—Alfalfa Organizations Will Be Formed in Each Community to Promote the Work—Field Men Experienced in Alfalfa Growing Will Follow Up Preliminary Work Where Requested and Give Aid in Getting a Start—Professor P. G. Holden, Director, Extension Department, International Harvester Company, Chicago, Will Direct the Work.

Campaign work with automobiles to begin early in April and extend into the late fall. County and city superintendents of schools, colleges, institute workers, Chautauqua lecturers, and others interested in the work will be assisted in obtaining alfalfa charts and literature alike. Alfalfa literature and booklets will be given wide distribution throughout the country. Special alfalfa articles will be sent to farm journals and magazines, and plate and matrix pages to newspapers. Alfalfa editions of newspapers will be published where campaigns are conducted. Dates will be arranged for "Alfalfa Day" in the schools. The campaign will be conducted in co-operation with farmers' institutes, bankers, business men, commercial clubs, granges, live stock and dairy associations in any community where the people are anxious to improve their conditions agriculturally and are willing to give their time and money for an enthusiastic campaign.

Work to be started immediately in the Corn and Cotton Belt States and in the East. Thirty to forty meetings will be held in each county, the number depending on local conditions.

To accomplish the most in agricultural development, we must begin with the man behind the crop. Upon him depends the final working out of the



Alfalfa Field in Bloom.

principles of agriculture—the simple and practical things—which our schools, colleges and experiment stations are endeavoring to bring into general use. Professor Holden proposes to carry these principles further even than the very effective work done on the agricultural trains, by using that most modern vehicle—the automobile—going directly to the people on their own farms where the meetings are to be held.

Agricultural development needs in addition to the work of our public institutes, the individual efforts of every merchant, banker, corporation, or laboring man, and this plan calls for their heartiest co-operation.

This plan for increasing the yields of our crops by the more extensive growing of that wonderful soil improver, ALFALFA, is meeting the approval of all men who have any knowledge of the beneficial results of its introduction as a general crop.

Campaigns are now being organized in five different states, and Professor Holden is daily answering requests for his assistance in organizing local facilities, and invites cordial co-operation with every community interested.

### ALFALFA PROVERBS

By Charles M. Carroll.

Alfalfa enriches the ground. Alfalfa is a drought resister. Alfalfa is the best soil doctor. Alfalfa adds humus to the soil. Alfalfa increases the milk flow. Alfalfa is high in feeding value. Alfalfa balances the corn ration. Grow your protein—don't buy it. Alfalfa sows good larger corn crops. Alfalfa is the greatest of all substitutes.

Alfalfa has no equal as a hog pasture. Alfalfa keeps stock in good condition. Alfalfa should be grown on every farm.

An alfalfa field is a hog's idea of heaven.

Fox tail is the greatest enemy of alfalfa.

Growing alfalfa is good business farming. Alfalfa means more money and better homes.

Raise what you feed and feed what you raise.

Alfalfa does things and never loaf on the job.

Alfalfa with a fair chance always makes good.

Alfalfa fills the hay mow and pays for the privilege.

Alfalfa is the cheapest and best feed for beef cattle.

Alfalfa insures larger yields from the crops that follow.

Alfalfa contains more protein per ton than clover or corn.

Alfalfa is the agricultural wonder of the twentieth century.

Alfalfa yields from two to three times as much as clover or timothy, and is more valuable hay.

Alfalfa grows best when sown alone. Many failures are due to sowing it with oats or barley. These take so much water from the soil that the alfalfa dies.

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There is no other hay so good as alfalfa for all kinds of live stock, and for horses and hogs alfalfa is unrivaled, either as a hay, a soiling crop, or a pasture. It excels as a hog pasture, and with hogs, makes one of the most profitable farm combinations. An alfalfa field is said to be a hog's idea of heaven.

In root growth alfalfa resembles red clover, but sends down a stronger tap root. When properly handled it produces three or four cuttings each year and remains productive for many years. Land which is adapted to red clover usually grows alfalfa when any lack of inoculation and of lime is supplied.

Alfalfa does best when sown alone. Many failures are due to sowing it with oats or barley. These take so much water from the soil that the alfalfa dies.

Alfalfa growing marks the highest development in our modern agriculture.

"Alfalfa is the richest hay food known."—J. W. Spillman.

Alfalfa excels every other crop.

## RAISING ALFALFA IN ILLINOIS

Charles E. Yanney of McLean county, on the George S. Hanna Place, has some remarkable results with alfalfa. He got a good stand on six acres by breaking the ground the last of July, disking it three times, harrowing and cross-harrowing two or three times, dragging twice, sowing 20 pounds per acre of seed broadcast, harrowing it in and rolling the ground. This was in 1906. The alfalfa grew about four inches high that fall and was not cut. In 1907 it yielded about two tons per acre, but in addition 150 pigs in 1908, the big returns began.

Three cuttings of hay returned 2 1/2 tons per acre, but in addition 150 pigs were pastured on this alfalfa from the time of the first cutting until December. The pigs were bought when



Second Cutting of Alfalfa.

they weighed 45, 50 and 60 pounds, and when they were weighed in the middle of December they averaged 125 pounds. Counting a gain of 75 pounds per head and allowing \$100.00 for about 200 bushels of corn fed to the hogs, and figuring the pork at 5 cents per pound, these hogs returned \$482.00. The hay was worth \$185.00, total \$667.00 from six acres or \$109.00 per acre. Contrary to the results in many other cases this pasturing did not hurt the alfalfa and was repeated without harm the next year.

In 1909, this piece of alfalfa yielded 3 1/2 tons per acre in three cuttings, and pastured 83 hogs from the time the alfalfa was four inches high in the spring until August 14, when 66 head were sold, and from then till first it pastured the remaining 17

hogs and 25 pigs bought at that time. It is estimated that the 83 hogs which weighed 75 or 80 pounds in the spring made a gain of 76 pounds per head. The ones sold in August averaged 182 pounds and those kept till later 225. Counting only 50 hogs and nothing for the pigs, they returned, after paying for the 250 bushels of corn fed, \$420.00 to the credit of the alfalfa alone; the hay was worth \$478.00; total \$898.00, or \$149.66 per acre. This alfalfa was not injured by this extra hard treatment but some parts of it were frozen out last winter, and this spring the field was disked and cross-disked and the thin spots reseeded, securing a fair stand. While many doubt that alfalfa is suited to Illinois, not having examined the evi-

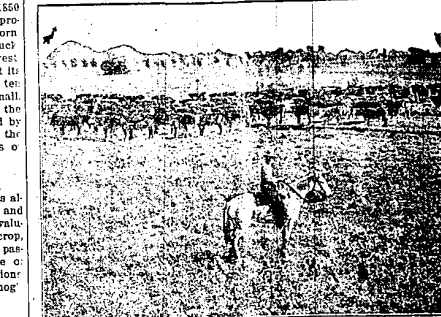
dence, and many more hesitate to start this new delicate crop, Mr. Yanney and hundreds of others are getting splendid results from it.

### TWO NOTED AUTHORITIES ON ALFALFA

In speaking of his experience in the knowledge of alfalfa, and encourage its cultivation and use by the farmers of Illinois. To be instrumental in bringing into general use a plant which will add untold wealth, not only to the farm, but to every other interest, will be far more creditable and more deserving of honor than that usually accorded for any public service.

Joe Wing Believes in Alfalfa.

Joseph E. Wing of Ohio, who has 160 acres of alfalfa, and who is one of the best known authorities on this crop in the United States, says: "Alfalfa is a perennial enduring on well drained soil from five to fifty years with one sowing. It may be cut from three to five times a year, and will yield in the region of the



Beef Cattle on Alfalfa Field.

certain and favorable results are expected from seedings to alfalfa up from any other crop.

"It is not so much the soil, the climate or the location, as in knowing how. That fact has been clearly demonstrated.

"In my judgment, alfalfa is the most valuable farm crop that can be grown in Illinois, and yet comparatively little is known about it in the state. I know of nothing that will do more for the development of the state or add more to its wealth than the thorough knowledge and understanding of alfalfa.

"I do not know of any greater or more valuable service that the few successful alfalfa growers, who have earned the lesson, can render their state than to spread far and wide a