

Much help from the crossing. However, you know my modesty, and I'm satisfied to state that Larry's generous. Although his horses and men have had enough, he plunges into the fight for his parismonious antagonist."

"The horses are yours," said Lawrence. "Send them along. Anyhow, I expect the generosity was Mrs. Spiers. But for her, we might have stayed in bed."

Spiers laughed. "Helen is a charitable soul, but she's flesh and blood, and a fire or a function calls a woman. She likes to be where people arc, and when something's going on I doubt if she would stop for a broken.

"The homestead is burning," said Helen. "Your business is to get there."

In front, but some distance off. a dark bluff on rising ground cut the party's view. All one saw was rolling smoke, pierced by dull reflections. The horses labored in sandy soil and Spiers left them alone. The load was heavy, and but for two or three hours' rest, the tired animals had since daybreak hauled his wheat across the stubble. At the top of the rise the ground was firm and sloped downhill, and the team went faster. In front, pale flashes Teaped from the smoke. For a few moments vague buildings got distinct and then then melted in the dark.

"Ogilvie's barn! The house would not burn like that," Spiers remarked. "He cut all the hay in his neighborhood and some in ours. I expect the stuff has settled and got compact."

Lawrence agreed. In the bad years, when the small farmers occupied rude log shacks and dug outs in banks, few could af-10rd a barn, but Ogilvie's was large and well built. His machines and hay must be properly housed. Then Lawrence looked up and smiled. Perhaps excitement accounted for something; perhaps the men were moved unconsciously by the rattle of harness and roll of wheels, but one began to sing a song popular on the plains. Others joined and Spiers with bronical humor helped the jingling chorus:

"My Bonnie lies over the ocean,

My Bonnie lies over the sea—'' Nobody's voice was musical

Nobody's voice was musical and Lawrence frankly laughed. Roared by the big muscular harvesters, the sentimental verse was ridiculous. The horses, alarmed by the noise, tossed their heads and stretched their wearied legs; the wagon, rocking and jolting, crashed along the uneven trail.

At the homestead fence Spiers pulled up and tied his horses. Smoke across the grass and frightened animals plunged about behind the wire, Ogilvie had got his horses from the stable, and since the building was near the fire that was something. The dark roof cut the leap reflections, and then for a minute or two all one saw was smoke. Lawrence thought Spiers' surmise accurate; the wild hay, mown some time before, had consolidated and so far burned sullenly; but by and by the thick vapor rolled back and he stopped to look about.

At one spot two or three men eronehed on the roofing shingles of the barn. Another at the top of a ladder hoisted a bucket; at the bottom, a row of indistinct figures, spaced a yard or two apart, went back into the gloom. In the background the light touched a tall windmill pump, but the rods were quiet and the wheel did not revelve. It looked as if the men passed the buckets along the row from the old open

well, and Lawrence thought their labor futile. Moreover, so far as he could see, nobody hurried.

The front of the barn was open, and a group rather languidly cut out and loaded up the unburned hay. The fellow who held the horses strained and swore; the others obviously did not bother much. Fifty yards off, another lot sat in the grass and smoked their pipes, as if they were an interested audience. Then the smoke got thick and the picture melted.

Pushing through the vapor, Lawrence collided with Ogilvie. A red flame leaped from the barn and he saw the old fellow's look was very grim.

"Hello! The concert party's yours?" said Ogilvie, and indicated the loafing group. "I suppose you'll join your friends and watch us from the stalls. You don't need to buy a ticket. the show is free."

"We thought we might help, but I doubt if you can save the barn," Lawrence replied in a quiet voice.

"I'm going to try. If I had a live gang, it wouldn't beat me, these stiffs are seared to move and until I put up \$2 a head not a man would ge."

"You have got a nosepipe.
Why don't you start the windmill pump?"

"The pump won't work. A crosshead's jambed, and the plunger rod is bent. I don't know how she got bent, but I reckon to find out—"

Flame flickered round the barn and the men jumped from the hay. Two on the roof steered for the ladder and a bucket scattered the group below. Ogilvie swore and was going off, Lawrence seized his arm and shouted for Heath.

"Mr. Ogilvie will give you some tools and a lantern, Tom. Try to start the pump."

They vanished and Lawrence turned to Spiers.

"The barn ought to come down. When the roof burns the fire might blow across to the stable and the house."

"Ogilvie will not let the barn go until he's forced," said Spiers. "I'll try to hustle the bucket gang. You might cut out the hay."

They got to work, and by and by Heath, dragging a big pipe, crawled across the stack where Lawrence was engaged.

"She's going," he said. "Perhaps we could get hose on top." The hay did not reach the roof and they dragged the hose up its notched front and into the smoke. After a few moments they were forced to stop and lie in the warm, damp hay. Water splashed from the broken shingles and sometimes a flame leaped through the hole, but so far the wet roof did not burn. A few yards in front, the stack had sunk into a sort of red crater. For the most part, the consolidated stuff rather smouldered than burned, but when enough was gone for the air to penetrate the charring mass, Lawrence imagined all, would blaze. The jet fro mthe hose was slack and sometimes nearly stopped.

"She's not lifting much water," he said to Heath.

"I straightened pump rod," the other gasped. "A crosshead takes the thrust and shoe was biting on t' slide. I couldn't wrench her loose. Looks as if she'd got a knock from a big hammer."

Lawrence had imagined something like that, but in the meantime it did not matter much. His face was scorched and he choked in the pungent smoke Besides, the feeble jet the hose threw rather provoked than checked the fire; the ascending steam perhaps helped the draught. There was not much

use in his meys is and when the heat got im apportable he crawled back to the spot were he had climbed the pile. His foot slipped across the adge and he was on the ground.

So far as he could distinguish, only Heath was about. The roof had begun to burn and showers and sparks fell upon the stable, which was not high. The wooden house was not far behind the stable, and the wind got fresh. Giving the hose to Heath, Lawrence looked for Ogilvie. Ogilvie was at the bottom of the ladder. The men had left the roof and Lawrence thought the old fellow meant to go up, but Spiers blocked the way.

"My slobs are scared," said Ogilvie in a scornful voice. "Let me pass, and if your bunch have any gall, hurry then along. I'll show the gang the roof will carry us."

"The roof will not carry you," Spiers rejoined firmly. "The barn is done with and you ought to concentrate on saving the other buildings. Isn't that so, Larry?"

Lawrence nodded. "I think Geoff is right, sir. When the shingles fall the fire will have room to burn, and the sparks and cinders will light the stable. If the stable burns, the blaze might reach the house. Your plan's to cut the main posts and bring down the barn. The wreck will burn, the fire will be low and the sparks cannot travel far."

Ogilvie frowned. If he tried to save the barn, he risked the lot, but to sacrifice the costly building was hard. Lawrence waited rather scornfully and Spiers' eyes twinkled. Then Oglivie shrugged.

"Sometimes one must cut one's loss. Can you get at the posts?"

"We must work from the inside and to reach three or four will be awkward. When you and George graded the road across the ravine you used giant powder. Have you some sticks left?"

Ogilvie nodded and started for the house. At the porch he signed the others to wait and vanished. A flame behind the stable drove back the gloom, and the light touched Lawrence's face. His skin was stained by soot and water and dotted by small burned spots. He heard steps and when he turned his head Margaret and Mrs. Spiers crossed the veranda. Margaret's clothes were wet, as if she had joined the bucket gang, and her eyes sparkled.

"You really are noble, Lawrence!" she remarked, and he did not know if she mocked. "Anyhow, I hope you like your triumph. Your men support you; all ours think about is to save their skin, and I cannot shame them to work. But perhaps you don't think it strange?"

Lawrence smiled deprecatingly. Margaret was highly strung.

"I certainly don't want to triumph. All I want is some dynamite and Mr. Ogilvie has gone for the box."

"You, of course, are practical," Margaret rejoined. "To philosophize is a woman's line! All the same, I expect you see your men's willingness is a reproach to us. One hates to be humiliated, particularly where the humiliation's logical; but I don't suppose you're interested. Why do you want the dynamite?"

"We are going to cut the barn posts."

"Then you must work inside the barn," said Margaret thoughtfully. "One will bore the holes; the other will fix the fuses and push in the powder sticks. Our men will not want to avenue, but I must find you somebody to carry the magazine."

She stopped, for Ogilvie came from the house. He gave Lawrence a small box and an auger, and they plunged down the steps. Ogilvie and some more carried the hose to the stable roof; Lawrence and Spiers went to the barn. The posts were thick spruce poles, but to bore the soft wood was not difficult

and when Spiers used the auger Lawrence cautiously loaded the holes. Before they began he had bedded the fuses and detonators in the plastic dynamite.

When they advanced farther into the barn the smoke got very thick and sparks rained down in the hay through which they stumbled. Water ran from Lawrence's eyes and the stinging vapor cut his breath If the sparks lighted the fuses he had placed, the barn might crash in flaming wreckage about his head, and so far the help Margaret promised to send had not arrived.

By and by, as he felt for the magazine, a stick of powder was pushed into his hand, and when the hole was loaded a beam from an electric torch touched the next post. Lawrence turned to see who carried the torch, but the light flashed across his face and dazzled his eyes. Some posts could be reached, although he hoped, when the others went, the plates and stringers, would pull them down. They bored the last in chocking smove and Lawrence acknowledged his helpers cool efficiency. Sparks showered about them and they carried a dangerous load, but when he wanted a fresh charge the stick was by his hand. Yet he could not see the fellow. All he saw was the electric beam that leaped to the proper spot.

"We are through! Warn Ogilvie to watch out, Geeff," he gasped, and pushed his invisible help. "Bring along your torch. We must light the fuses."

He imagined Spiers tried to seized the torch, but was baffled; anyhow he went off, and Lawrence and the other crept back along the wall. The small bright beam searched for the posts and stopped and Lawrence rubbed a match. The fuse sparkled and they went faster. At length, he touched his companion.

"The last! She'll go in two or three minutes. Get from wunder!"

They jumped for the barn's open front. Red flame curled about the hay, and Lawrence saw a dark slim figure a yard or two before him.

"Margaret!" he gasped and seized her arm. "The timbers may fall outward. Come on!"

They stopped by a fence and Margaret leaned against the wire. Her hat was gone and her breath was labored, but when she turned to Lawrence she laughed. "Was I useful, Larry? Would you trust me another time?"

Lawrence thrilled. Her courage stirred him, but that was not all. He wondered whether Margaret, for example, would have earried the powder through the smoke for Spiers.

"I know your pluck, but I hate to think about your risking an explosion. You ought not to have done so."

Margaret gave him a baffling

"Oh, well. I did not remark that you hesitated, although to save our barn was not your business. Then my father was saving the stable, and since the boys were afraid, I felt somebody must carry the magazine. Our habit is not to allow strangers to fight for us, and in a way perhaps I stood for my house."

"Ah," said Lawrence, "I know you do feel like that. There's the trouble, Margaret. But somehow you imply you had another object."

"I wonder—" said Margaret, arelessly, and stopped.

carelessly, and stopped.

The barn roof tilted, broke, and sank, and for a few moments the gap was like a furnace mouth. Then the walls slanted inward and crashed. Cinders fell in glittering showers; the pillar of flame vanished, and then began to break through the glowing wreek. The blaze, however, was low and Lawrence heard Ogilvie shout for his bucket gang. When he looked round, Margaret had vanished, and he went to search for Spiers.

(TO BE CONTINUED)

Q. What is ecology? B. T.
A. It is a comparatively new branch of botany which deals with the relation of the plant to its environment, plant associations, and plant distribution.

reated down the Ohio to the South.

Peace negotiations between Pitt for the British and Choiscul for the French took place at Paris in 1761.

"You shall go home." Carlyle credits Pitt with saying to the French. "out of those countries. Messieurs: America is to be English or Yan-kee, not Franscee: that has turned out to be the decree of Heaven; we stand by that." The first use of the word was therefore one of pride and pairiotism, just as its last use has become. It may have been a term of reproach 150 years ago, but it did not begin that way. Hence it was not first used as a term of opprobrium by the British. It meant an English-speaking-empire first.

## OF INTEREST TO FARMERS

RAISE BREED THROUGH SOWS Did you ever see a real outstanding boar, either from the standpoint of individual excellence or breeding worth, that did not have a good dam? Or did you ever see a good or great man that did not reach that goodness or greatness without the influence of a good mother? There may be exceptions, but they are rare. Humans readily recognize this and give due and proper credit, even to the slighting of the father. Indeed, poor old dad travels a rough and rocky road, getting scant mention or appreciation, either from the comic strips, the jokesmiths or in real life. have Mother's Day and celebrate it and hallow it, which is right and proper. We have a Father's Day too, but no one pays very much attention to it. All of which is probably right

But how different it is in the realm of animal breeding. One would think from the manner in which a lot of breeders select their herd boar that it doesn't make any difference whether the boar ever had a mother or not. How often have you heard a breeder says: "I am using a son of Giant Mammoth." What's his dam? "Oh, she's by Mammoth Giant." They pay no more attention or give no more consideration to the maternal side of the boar's pedigree than if he came into the world entirely without her assistance. He might just as well have been "hatched by the sun and fed by the woodpeckers' for all the consideration his dam gets.

As a matter of fact the heredity factors carried by the offspring are affected to an equal degree by both the sire and the dam and there is equal necessity for superior characteristics of individuality, breeding and quality. If breeders would be as zealous in consideration of the dam of their boar and as critical of her good points of breeding and breed character as they are of the sire, we would be doing a lot more good than it is.

It is true that the sire wields a greater influence on the entire pig crop of a herd than any one sow, but his influence for good on any one particular litter is no greater than that of the dam. And the best pigs from a crop sired by a good boar will be found to have for their dam sows that measure up in individual merit and breeding worth with the sire.

We have had the Better Sire Movement for a long time and it has worked a great improvement in the quality of our livestock. It is high time we paid equal attention to the improvement of our females. A Register of Merit for our sows, combined with the Better Sire Movement, would work wonders for the further advancement of the breed.

TRAP NESTS MAKE RECORDS

A trap nest is a simple devise to catch the hen when she enters to lay. As she passes into the nest she presses against a trigger which holds up the door and it falls down behind her. When she has laid the egg it is numbered to correspond with the number on the hen's leg band. This enables the breeder to keep each hen's eggs separate with perfect accuracy.

Attempts to improve the egg-producing qualities of the hen date to the domestication of the hen, but it has only been within the last few years that rapid progress has been possible in this work. The inability to determine the good layers has been the difficulty.

With the perfection of the trap nest this difficulty has been removed and many poultry breeders are now engaged in the production of egglaying strains of fowls.

The greater majority of people make no selection of hens from which to hatch their stock. The eggs of the whole flock are kept together, and when eggs are desired for hatching they are selected from a general basket.

It has been assumed and is shown by trap nest records that eggs thus selected in the spring of the year are from the poorer rather than from the better layers. This is because the hens that have not been laying during the winter will lay very heavily during the spring season.

PEST ERADICATION

In one year, writes a real "dirt farmer." I succeeded in whipping out a 10 acre patch of quack grass. The grass had so much of a start that there was a perfect sod, so completely matted, that it was impossible to grow any other crop on the larger part of the patch. In the best places, oats grew only fairly well. After the oats were cut the field was plowed with a stirring plow about two inches deep. This was disked and harrowed until the roots were loose. The roots were then raked, hauled off and burned. The next week the field was plowed a little deeper and the same process repeated. By continuing this process, the quack was not allowed to get a start and the new leaves were not allowed to get to the sunlight so that they might continue to store more plant food in the rootstocks, thus enabling them to continue their existence.

By winter, the quack was getting very weak. The next spring this land was disked up well until late in the spring, and then 50 pounds of millet were seeded per acre. Thirty five pounds is the usual rate of seeding.

When the millet was cut for hay,

## BARROWS VS. GILTS

It is commonly thought that purrows will make more rapid gains than gilts due to the periodic cestrum of the latter but there is no experimental evidence to support this contention.

In trials including 601 barrows and 469 gilts, the barrows averaged 1.28 lbs. per head daily, the gilts averaged 1.26 lbs. It is thought that the fact of usually selecting from the herd a number of the better gilts for breeding purposes, has had an influence in leading farmers to believe that the barrows make considerably more rap-

there was not a spear of the quack to be found. The millet had acted as a smothering crop for the few plants of quack that remained to reinfest this land.

In northwestern Iowa, I have seen the same method used as successfully in the eradication of Canada thistle. Here, however, it is the custom to put on a very heavy application of manure. This starts the seeding much quicker, makes a ranker growth of the smothering crop, and insures more thorough results. In one county large patches of the thistles have been killed in this way, and so thorough has the work been, that not a trace of the weeds were left. I have talked with many of the farmers there who look upon the eradication of the thistle as a rather simple process when this method is used. The main thing in the destruction of quack or thistle is thorough and frequent cultivation preventing any growth whatever, manure enough to produce a quick, cank growth, and enough seed to produce a thick stand.

WELL, WHAT OF IT?

In an effort to make us realize the situation clearly, the United States department of agriculture has compiled some illuminating figures on the subject of the migrations of American people from the farms to the city and from the city to the farm. In cold figures it is shown that the movement away from the farm having the best of the argument, for while 1,135,000 persons moved from towns into the open spaces last year, a total of 2,155,000 shook the dust of the furrows from their feet and went where they could pound asphalt pavements as they went about their daily grind.

It is perfectly understandable why numbers of people, in this day and generation, should want to leave the farm, its burdens and discomforts in a few sections of the country where conditions of climate and the lack of conveniences actually make for hard-ship.

Agriculture is picking up gradually everywhere-it always does after periods of depression and adjustment. In some places these are even evidences of prosperity. The problem always, in a way, affords its own solution. Overproduction in some one line or in various fields is responsible for much of the trouble in the first place, and the slump that follows sends people in droves to the cities. Those left start in making money. In fact it isn't altogether certain that this cityward movement that so menacing after all. Those who are constantly whooping up new schemes for bringing more land under frigation and increasing production are often in a very real sense "rushing things' to the actual detriment of the growers already established, at least under present conditions of marketing and distribution in the agricultural industry. Until farming agricultural industry. Until farming has been put by the farmers themselves on a basis more like that of manufacturing, or our population has increased to the point where every acre's product is needed, we are bound to have these recurring worries over movements to the cities from the farms. Farming is a healthful occupation, but not so very many of us would be willing to farm for health alone.

NO "BEST" BREED

The question often is asked which breed of chickens is the best. There is no best breed of chickens any more than a best breed of hogs or cattle. If there were a "best" breed of chickens most poulterers would be raising it now. Similarly there is also no "best" strain within any one breed.

There is no recognized standard by which anyone can say that one particular strain or breed is better than all others. It is a well known fact that Tancred Leghorns have been developing along lines of high egg production, size of foul, size of egg and standard characteristics. However, the same might be said of several other strains of White Leghorns or of strains that have been developed in other breeds.

One thing that is often overlooked in discussing a breed or strain is the fact that there are good and poor birds in every breed and every strain of poultry. People who have not observed this have sometimes been led to buy birds of a certain strain or breed regardless of individuality, Often birds are only distantly related to a particular strain, and, besides they may be poor individuals. It is always well to pay strict attention to the sire and dam of birds or of eggs purchased, for they will have more influence on the offspring than some distant ancestor. More attention should be paid to the individuality than to breed.

Trap nesting is necessary in building up a strain of heavy producing birds. The demand for the future will be for birds of good standard characteristics of any of the common breeds that have been carefully bred along lines of known ancestry and production. This offers a good field for the breeder regardless of the breed or the strain that he may select.

id gains. Where all the gilts farrowed are compared with all their barrow mates there is no appreciable difference in rate of gain, at least up to 200-225 pounds weight.

LONG HOURS CONDEMNED

The farme can stand a longer day than the mechanic, because his work is more diversified; but a 14-hour day, as is practiced on many farms,

Rye. even if ground, is not as good a ration for pigs as crushed oats or barley. It is not as well balanced a feed as the other cereals.

## MATHEMATICAL SCALE USED TO GRADE SUITORS Paris (AP)—"Mathematical Love." Ex a system of grading pretenders

Paris (AP)—"Mathematical Love."

ox a system of grading pretenders
for her heart just as a schoolma'am

knarks examination papers, is a new

vagary of the French "modern" girl.

She scales them from zero up to

mythical 1000, a standard of per-

ction yet unattained. High marks

Wealth, appearance, conversational

eem to range between 30 and 40.

ability, cleverness in courtship, social standing, character, ability in sports and acquaintance with notables are the main clasifications. Some girls, of course, consider knowledge of literature and contact pay attention to religion.

Jacques Barty, telling of the "love mart," and its quotations, comments that in all this love game the only thing left out of the rackoning is—

Origin of Yankee
Theodore Roosevelt asserts that the term "boche," referring to German

soldiers, is similar to the word "Yankee." which he says "was applied to Americans first as a term of opprobrium by the British."

Whatever it may have been, it is

Whatever it may have been, it is not a term of opprobrium now, nor was it in the recent umpleasantness. Nor was it when first comed, as a little scrutiny of Carlye will show. It was born of the struggle, Carlyle shows, between the English and the French for possession of North America. The issue was whether the country she be "L'Anglais" of "Francais." Washington helped to turn the tide for the British, who finally overwhelmed the French at Quebec, 1759. Shortly after the French re-