thoughtfully, "though I can't tell you how I dreaded going to that place, with my shaky merves, I'm glad I went. I hope I was of use to that pathetic little old wife. I don't know about that. But-but she-she was of marvellous use to me. I bever-never in my life-saw anything like her fortitude. Why, after it was over, shecame to the door with me, and thanked me for coming! And

His voice broke. Mackay and a moment of fear that the emotional strain of a scene like that had been too much for the man who had his own heavy troubles to bear. But his next strong impression was that the wight of little old Mrs. Cutler's courage had really been, as Chase had said, to inspire his

So Mackay said, in the quiet, warm tone of confidence which is the best support for weakmess in another, "I can imagine. Isn't she the greatest Bittle old soldier you ever knew? She's been shouldering her crutch and marching to the mensic for years, one knows by the look of her. I don't think she'll march much longer, now her old mate is gone, but she'll be game to the end. I'm glad you were with her, to see her and help her through. There's mobody like you, Doctor Chase, to know how to say the right thing. I've heard you do it many times, and I know."

Chase turned to look at him. You never saw me in a place like that. The pulpit's one place. A little room like that is quite another. I-Mackaywomehow I didn't feel very big in that little room."

"I know." And now Gor-Son Mackay felt a definite personal liking for this man that he nadn't quite had before. This was the real man menking, he was sure.

But now the speaking was ever. Suddenly Chase felt brongelf very weak and and leaned heavily on Macmy's steel-strong arm. The younger man wondered for an metant if he oughtn't to leave him and run to the house for a ear with which to bring him the few remaining rods. But Chase shook his head and moved slowly on.

"It's - just - nerves." he breathed. "I can-make it." So they made it, and came to the house. They had also come a little way on that aneient road toward friendship made by the mutual understaning of each other's feeling im a great hour.

(From Josephine Jenney's Note-Bookk)

Dream evening, followed by hour or two of nightmare anxiety. All serene this morning. The dream was of old days.

Brought on by flying drive in to Stadium, in Dallas Hunt's readster, with Gordon Mackay making the third, in close quarters. Could shut my eyes and imagine myself tucked in between Julian and Blair Reymor, dashing for almost anywhere that occurred to us. Wind in my face, low voices in my ears, a drift of cigaret smoke, lights, lights, lightsthen a tunnel of darkness under trees-a queer sense of happiness - expectancy recognition of others' similar

reactions-Then music - gorgeous plerious - heart-breaking -Suspended between earth and

Afterwards the funny trip home, coming back to earth with a bounce. Crowds, noise, reck, heat, on the train. Then quiet, coolness, wetness, gales, alippery roads, muddy hills-Cherry Square-

Finally the dash off through the fields looking for our patient Bradley Sturgis at my

Morality of Animals. From the New York Times.

In setting themselves apart and here the world as dumb brutes, nem have sometimes seemed more bruint than the animals they man en Superior intelligence man purposes. Whether animals are ev-er able to recognize man's injustice when it occurs we cannot be sure Purzire upon a cruel master.
Purzire is perhaps beyond the capacity of an animal to appreciate
completely. But it is almost the moval feeling omitted by Pro-

" Anyhow," Chase went on | heels, trying to make most of excitement. Might as well have been a midge humming in my ears. Frightfully anxious lest we find tragedy. Return to house, to find the pale invalid resting, a strange look on his face as of one who has been seeing something he hasn't seen before. Whispered that to Mr. Mackay, who whispered backk: "He has." And told me no more. Think, whatever it was, Gordon Mackay must have seen it, too.

XIII.

Adelaide Sturgis had made quite sure that there was nobody in the house except herself, Even Norah O'Grady had left her kitchen shining and fragrant, and had run over home to pick some blackberries from her own small garden for the Chases' table. Sally had taken her husband for a long drive. Jo had gone out with Bob; Mary had the other children well away from the

Every plan of Adelaide's for the day had fallen through. She had expected to motor into town with a man she knew for dinner and the theater, but at noon he had telephoned, explaining why he must default. Dallas Hunt had been away all the week. Therefore Adelaide was feeling more than ordinarily down on her luck. And always, at the bottom of her disappointments, was the mental image of Jo Jenney. Whoever else was unhappy, Jo seemed full of the zest of life, And not for any special reason that could be discerned.

Suddenly there had come to Adelaide the desire to go into Jo's room, in her absence, and see if she could discover any secret of her attraction for the various people who were constantly showing how much they wanted to be with her. There must be some reason, some recipe, some formula, hidden there. Girls' rooms were revealing, Adelaide well understood that. She herself would have admitted that her own, at this very moment, looked precisely as if it were hers, and no other's. The oldfashoneid bureau top was a jars, boxes and bottles, all of jars, boxes and botles, all of them in some way contributing to her toilette. One drawer was partly open, and scarfs of all hues and fabrics had been stuffed therein, so that they overflowed. Heavy exotic scents hung about the room, A silken garment of bright green with ostrich bands had been thrown carelessly over the foot of the bed. The bed itself was piled with small pillows of lace over green silk-Adelaide affected green as her color, to match her eyes. An artist had once told her that green eyes were the most beautiful of all, especially when the hair was russet-which was what he called hers. She had kept it more surprisingly russet ever since that hour, but means of aids known to beauty special-

Leaving this room of hers on tiptoe, she stole down the hall to the turn at the back, beyond which she knew Jo's room must be. Even though she was sure that the house was empty, she advanced with caution, making no sound, Past one door after another, she finally stood at that of the one which she knew must be Jo's, because of its exquisite order. Nobody else in the house, not even Sally herself, would leave a room so absolutely devoid of things out of place as that. Even the bureau drawers were every one closed tight.

There wasn't must to be seen at first glance. The bureau top held a few simple and inexpensive articles lying in even rows, A dozen books stood between plain book-ends

fessor James H. Leuba in his dis-

cussion of morality among the ani-mals in the June Harper's.

rality, a good case is made out for

found every conceivable emotion.

both good and bad, expressed by

paper to a consideration of four

major aspects of morality as dis-played by man and his inferiors.

The first of these is the common

claim of both to personal property

Birds defend not only their nest but

the feeding ground surrounding it.

from which intruders are excluded.

Many apes have playthings which

Professor Leuba limits his

a considerable area

its existence in animals,

Whatever one's definition of mo-

Darwin

on the small stand beside . bed. Crossing the room Auelaide scanned these, and drew a deep, derisive breath, though it was a surprised breath as well. "Posing!" she said to herself. "A country school teacher!" There was nothing else to be noted. But the closed drawers, the closed door which presumably opened into a clothespress, stimulated her curiosity.

She listened again; not a sound stirred the air, except the litle summer outdoor noises which came faintly in at the open window. She cautiously opened the top bureau drawer. The usual things-and a photograph, and a bundle of letters. She took up the photographfirst noting carefully exactly how it had lain in the drawer. It was by one of the best photographers in New York, and it was of a young man so exceedingly good to look at, that Adelaide stared and stared again.

"Ah, ha, my dear-so you're more of an old hand at it than I thought you were!" she said to herself. "I might have known it, though. There's certainly something queer about you, the way you play your cards. That demureness of yours covers trickiness-and I've got to find out what it's about."

She replaced the photograph, fingered the package of letters lengingly, but reflected that if she were suddenly surprised and had to make a quick retreat it would be dangerous to have letters to dispose of. She stood looking longingly at the door of the clothespress. Just why she was temped to explore what she already knew must be Jo Jenney's slender stock of apparel could hardly be explained. And yet she found it in possible to resist this desire. Therefore, yielding to it, she opened the door.

Slender the stock proved to be indeed: the straight dresses of blues and whites and tans which Jo wore daily, one plain tailored suit of dark blue cloth, two simple hats upon the shelf, several pairs of well-kept shoes upon trees on the floor below. Where was the thin blue frock which Jo so often wore for dinner, and the sight of which always roused Adelaide's curiosity? This she felt she must see. Yes, here it was, behind the suit, and covered with a little flowered muslin protector. Certainly, Jo's ways were of the daintiest with all her possessions, the interloper had to concede.

Adelaide examined the dress. Beautiful material, artful lines, a peculiar feel and faint fragrance about it which recalled other scenes far removed from the country village. Hurriedly she looked at the fine silk inner lining, and discovered the label of a famous Paris dressmaker.

She forgot entirely where she was and the danger of discovery while she stood surveying this tell-tale mark. Then she laughed to herself. "Idiot I am! Of course she bought it at one of those cheap shops where they sell second-hand clothes, and had it cleaned. She's more knowing than I thought her. . . . How I hate that dress! I'd like to-burn it up!"

A quick step sounded in the passage outside. Adelaide flung the dress back upon its hook, the outer covering all disarranged, panie upon her. Of course she was caught, fool that she had been. She stood waiting to be discovered, she hadn't a chance of escape. How on earth had she been so careless as to forget to listen? She had gained nothing and lost much. How should she explain, where there was no explanation? One preposterous excuse leaped into her mindshe would use it, it was better

than nothing. She came out of the clothespress as Jo ran into the room, an eager Jo, flushed with exercise and a touch of sunburn, a gay whistle on her lips. At sight of Adelaide she stopped

they will permit their fellows to handle, but which must be re-turned. Often a monkey will take a favorite toy to be with him every In defending their property, whether home, mate, food or toys, animals "do not cautiously measure the "strength of their antagonists before giving battle."
They rush in just like a man who knows he has the right on his side. Rightnous indignation" is

bad term to describe their attitude It is harder to find a concise expression for the behavior of a do-mestic animal when scolded by his master. If a dog has never been struck or punished in any way, he will nevertheless fawn and cower short. "You'll excuse me," said Adelaide, with more hauteur than was convincing in one found in so compromising a situation. "I smelled smoke and have been looking everywhere back here, since it didn't seem to come from the front of the house."

A smell of smoke, and not a fire alight in the house! But Jo accepted the explanation with a nod. "Thank you," she said, with a slight lift of the evelrows, for at the moment the hanger which held the blue frock from Paris slipped to the floor behind Adelaide. The invader turned involuntarily.

"Afraid 1 disturbed something," she said, as she went toward the outer door of the room. "I thought there might be a hot chimney back there.'

Then she disappeared, having had no further response from the owner of the room. To Jo there seemed to be nothing to say. She went to the clothespress and picked up the frock and replaced it upon its hanger It was impossible not to note that the cover of flowered muslin was not disposed in its usual way upon the dress, and that a mere slipping to the floor could hardly have made

this difference, "Now why," she said to herself, "with a dozen frocks to my one, should you care?" And then she thought she knew. Dallas Hunt had spoken admiringly of that dress in Adelaide's presence. "Oh, how little, little, you are!" she breathed.

(From Josephine Jenney's Note-Book)

Mrs. Chase gave me a day's

leave of absence. Back from seeing Julian. Cannot put one word on paper of hour not to be forgotten. Just want to record belief clung to through everything that God is there-somewhere -even as here.

But-his face-his eyes-This is a dear spot to come back to, after a day on trains and in taxicabs. The garden is so lovely just now. . . . Gardens—trees—sky—I'd better stop writing till I'm not so tense.

"Mrs. Chase! You see] couldn't resist stopping. It's good to see you again! And what do you hear from your traveller husband?"

Sally Chase looked amazedly into the frankly admiring eyes of Mr. Sage Pierpont, who had crossed her lawn without her being aware of the fact. Under the big beech she had been reading aloud to Schuyler, who lay stretched in a deck chair, his back to the street. She had thought him almost asleep, but she was instantly aware, as the deep and resonant voice of Mr. Pierpont accosted her, that Schuyler stirred and listened, in full consciousness.

"Mr. Pierpont! I really thought you had forgotten to keep your promise," Sally said, as she gave him her hand, noting the big car which stood outside her gate, empty except for the chauffeur. "Won't you drive in, and stay? You must stay. And is it possible you don't know my husband is here?"

"Here!" "Schuyler," she turned and spoke to him. He rose out of the deck chair, and she saw him raise his hand to the black spectacles which covered his eyes, as if he had the impulse to remove them. But he did not do so-he had been often warned that he must not expose those eyes to the bright sunlight, and never had there been brighter sunlight than that of this August Sunday morning. He came slowly forward, and the massive, commanding figure of Pierpont, president of the board of trustees of the church which Schuyler served, advanced to meet him. Shocked astonishment was written upon the face of the elder man.

(TO BL CONTINUED)

when scolded. He will appear to be ashamed if he is caught in disobedience. He is not so much terrified at the physical pain of punishment as troubled-perhaps by conscience! The third trait is helpfulness. Animals are devoted to each other in making their homes, feeding the young and caring for an injured mate or relative. Monkeys, especially the females, will give their own food to others that are ill or hurt, even if they are not related. They also show great sympathy and affection stroking and petting each

OF INTEREST TO FARMERS

One thing that is gradually coming is the "father and son" farm idea. It is no uncommon thing in the middle west to find a son, or sons, must be consulted if a salesman or a stock buyer is trying to put a proposition before the owner

"I have figured it out," said a machinery salesman who travels the middle west selling farm implements, "that these firms are the direct outcome of the boys' clubs that have been formed. A boy as a small shaver gets interested in picking out the best ear of corn for the home exhibit; he wins a prize; he becomes interested from this moment in better farming. The next year he tends a calf most carefully and he finds he is the possessor of another prize; his interest is whetted and he goes into the game. When he has reached the age of 14 or 15 he may have \$200 back of he decides to keep on making stock or chickens or seed-corn or per-haps popcorn increase his savings and pay him a real dividend on the work he can put back of his

"Now the really wise farm father at this stage of the game, I find, often takes the boy into a farm partnership. He knows that the co-operation of his boy or boys, as the case may be, means the ultimate success of his farm venture, and he asks their advice; them in on any consultation about farm improvement; studies with them the possible output of every foot of the acreage; and makes them realize the overhead and the results of the farm game

"Often I have addressed the owner of the farm with a view of selling him some needed piece of machinery, and he immediately tells me he will call in his son to talk over the proposition with us. other day I had reason to believe that I could sell a plow to a cer-tain party. I called on a rainy day, for that is the day a farm salesman can often do the best business, and I had no sooner started to talk plow than this farmer stepped to the door, called his 18year-old son in and explained to me that he had a small share in the farm, and he, too, had studied

their needs in plows. "I expected to have a boy come in and listen to what I was saying to his father, have him look to his father for decisions, etc.; but no sooner had I commenced to talk plows than this boy began to question me as to the relative merits of the 'two-way' plows, the tractor plows, the gang plow, etc., until I found that he had made a study of plows that was most comprehensive.

"'You see,' he explained, 'we (I noted that 'we') must buy the very best plow needed for our work. I have studied plow catalogs for three months and now, if what you can prove to me agrees with what I have figured out, we may be able to make a deal."
"I was impressed with this boy's

knowledge, and you may be sure I wanted to sell him the very plow that would be best for his use. talking with the father after the sale had been made and the boy had gone back to his work, he said: 'Yes, we farmers are beginning to realize that every boy we can keep on the farm is the greatest asset we can have, and the one way to keep 'em is to make a part of the farm theirs. All the members of our family are part owners of our plant here; girls and their mother have the chickens and ducks and such like, and the boys have some acreage, some stock and are joint

owners in the car." You would, if you had reason to make door-to-door calls on farmers, be convinced that this movement is growing steadily, and when the county fairs or the state exhibits are on, you will see more and more boys taking their own stock or their own crops of seed-grain for display. And you will find that in many cases the boy's real bank account will show a larger balance than his father's will at many times of the

MAKING OF NEW PLANTS

Where do we get the new plants that are offered by dealers each year? How is the interminable procession of novelties kept up? The making of new plants is one of the most fascinating develop-

ments of modern science for it is to scientific plant breeding that we owe most of them. Formerly the chief source of supply rested on plant explorers scouring remote countries of the world and sending back new species of plant like that they destroyed. As the surface of the earth becomes more carefully explored, this source for new garden material diminishes. Of late years the interior of China and Thibet have yielded the greatest quantities of new plants. Of the plants listed in commercial catalogues, the primroses have, perhaps, shown the greatest number of additions. Specialists list 100 or so species and varieties, a large portion of them brought into cultivation within the last 20 years.

New varieties occasionally appear in plantations so distinct as to warrant being regarded as distinct species. These are known as mutants, a term applied by the Belgian scientist, Prof. Hugo DeVris, who devised the famous mutations theory to account for the appearance of new species of plants. There are continual slight variations in plants and by cultivating these slight variations through several generations new types are often secured. The Shirley poppy owed its origin to a common red poppy showing a faint line of white on the petals. Seed of this poppy was saved and sown through several generations, saving only those which showed increasing white until now we have

this race of pale-colored poppies. KEEP FOWLS THRIFTY

A hundred pound gain in weight on a couple of hundred broilers as the result of feed going to make bone and feed instead of being wasted maintaining worms, more than pay for the time it takes to move the brooder house a hun-dred feet or so from the old runs. It's by far cheaper to control worms by getting the chicks away from infested ground than to try to dope the chicks for worms.

PARTICULARLY FARM WORK There is no substitute for work, but systematic planning will make

the work easier.

Professor DeVries declared that mutants were the result of discon-tinuous variation, the change coming at once and inexplicably. Some of our best new varieties originate in this way, the dahlia-flowered zinnia being an example, according to some experts. The zinnia with curled petals appeared alone among a bed of thousands and was segregated and found to breed true.

The discovery of Mendel's law of heredity in 1865, which was not developed and put into practical ap-plication until some years later, has placed plant breeding on a scientific basis so that a breeder may estimate with reasonable certainty the result of crosses that he makes, knowing from Mendel's law the proportion of plants he will get from a cross which will resemble each parent and those which will show a mingling of the characteristics of both parents.

When a desirable cross has been secured the next step is to "true it up"-that is, to inbreed it until all or most all of its seedings repeat the desired qualities. This is called line breeding. Selection is a part of this process, that is taking only seedings of the best form and color or possessing the characteristics for which the breeder seeks, and destroying all others. This work takes a number of years, in many cases, but when the work is completed we have a new race of plants for our gardens.

Only plants closely related will cross successfully. When they are remotely they are known as wide crosses and seedings are likely to produce monstrous forms or, if desirable, to prove sterile, that is, unable to form or produce seed. Breeding progress, therefore, stops. Such plants are known as "mules" from their similarity to the domestic animal, which cannot reproduce itself by mating with its kind. This is common among the pinks, the old Dianthus Napoleon III being a mule pink. It can be propagated only by cuttings.

But by far the greatest number of new varieties of our new plants and new strains of plants are the result of scientific hybridization.

ENGINEERS AID FARMERS Most people do not realize the contributions engineers have already made to agriculture either directly or indirectly. Few have given careful consideration to the importance and value of more intensive work in the application of engineering to the various agricultural activi-

Within the last 75 years, those contributions have brought about a greater advancement in agriculture than had been recorded in the entire history of the world up to that time. It was not until about 1850 that improved and modern machinery began to appear. Now one American farmer produces more than five times as much wheat as he did in 1850. If America produced at the same rate now as in 1850 it would require about 60,000,000 more de than there are in the entire nation to produce last year's wheat

crop In 1800 approximately 97 per cent. of the entire population of this nation were engaged in agriculture. This percentage had changed very little up to 1850, at which time about 90 per cent. were engaged in agriculture. Now approximately 25 per cent. are engaged in agriculture and have no difficulty in producing a

surplus of food. Within certain reasonable limits, the proper application of power will probably work out as advantageously on farms as it has in factories. least there are many indications

pointing that way. Surveys on a cost accounting basis have been made in practically all states of the union. These surveys show that different farmers in the corn belt vary from four to 40 hours of labor required to produce an acre of corn, and that the actual growing cost per bushel varies from 35 cents to \$1.50; with wheat, the cost runs from \$3 to \$7 per bushel; with pork from 5 cents to 20 cents per pound, and with butter from 20 to 60 cents.

Any profit is the result of the sale price less the cost of production There are, therefore, two methods of increasing profits. One is to increase the sale price without increasing the cost, and the other is to decrease the cost without increasing the sale price. Obviously, farmers should do everything within their power to take advantage of both methods.

Here is where the engineer must step in. If agriculture in the very nature of things is and always will be so individualistic that farm organizations cannot establish and operate large experimental laboratories as do the big industries, and if the profits to be reaped by private business are not sufficient to warrant the expenditure of large sums of money for these purposes, it is perfectly proper for the government to operate such experiment stations. It eems not only proper but necessary. This it is doing now in a small way. but work in agricultural engineering in the United States department of agriculture and in our agricultural colleges has been started but a few years, and is still in its infancy.

PROLONG MOWER'S LIFE Can you name a piece of farm machinery that gets more abuse than the mowing-machine? Its average life is 500 acres, but manufacturers say it will, with proper care, cut 1,500 acres. Dull or worn knives, guards out of line and off centerthese make the mower run hard. cause side draft and no end of trouble. Surprising how cheaply the cutting parts of the neglected mower can be replaced-ask your farm machinery dealer about it. The cost of repairs will be returned to you in the saving in time and horseflesh.

INCREASE SPUD ACREAGE Wherever a cornfield adjoins a

pasture, cows are sure to reach through or be unnecessarily hard on the fence. Take away the temptation by planting late potatoes at the edge of the corn. They do well, provided they receive one or two hoeings besides the cultivation with the corn. There is another advantage-more room is allowed for turning when cultivating the corn. Potatoes do not seem to be injured so badly as corn by trampling of horses' feet.

Atfalfa adds fat and aids fortune in the hog business.