LOVES THE ORCHARD

Kingbird's Hostility to Hawks and Crows Is Proverbial.

It is True Flycatcher and Takes on Wing Large Part of Its Feed-Picks Up Many Insects From Trees and Weeds.

Prepared by the United States Depart-

ment of Agriculture) The well-known eastern kingbird is essentially a lover of the orchard. though groves and the edge of forests were probably its original habitat. It breeds in the states east of the Rocky mountains, and less commonly in the Great Basin and on the Pacific coast. Its hostility to hawks and crows is proverbial, and for this reason a fam-by of kingbirds is a desirable adjunct to a poultry yard. On one occasion in the knowledge of the writer a hawk which attacked a brood of young turkeys was pounced upon and so se verely buffeted by a pair of kingbirds whose nest was near by that the wouldbe robber was glad to escape without his prey. Songbirds that nest near the kingbird are similarly protected.

The kingbird is largely insectivorous. It is a true flycatcher and takes on the wing a large part of its food. It does not, however, confine Itself to this method of hunting, but picks up some insects from trees and weeds, and even descends to the ground in search of myriapods or thousand-legs. The chief complaint against the species by both professional beekeepers and others has been that it preys largely upon honeybees. One bee raiser in Iowa, suspecting the kingbirds of feeding upon his bees, shot a number near his bives; but when the stomachs of the birds were examined by an expert entomologist, not a trace of honeybees could be found

An examination of 665 stomachs collected in various parts of the country was made by the biological survey but only 22 were found to contain re



mains of honeybees. In these 22 stomachs there were in all 61 honeybees, of which 51 were drones, 8 were certainly workers, and the remaining two were too badly broken to be further identified.

great bulk of the food are noxious species, largely beetles-May beetles, click beetles (the larvae of which are known as wireworms), weevils, which prey upon fruit and grain, and a host of others. Wasps, wild bees and ants are conspicuous elements of the food, far outnumbering the hive bees. During summer many grasshoppers and crickets, as well as leaf hoppers and other bugs, also are eaten. In the stomachs examined were a number of robber flies-insects which prey largely upon other insects, especially honeybees, and which are know to commit In this way extensive depredations. It is thus evident that the kingbird, by destroying these flies, actually does good work for the apiarist. The 26 robber flies found in the stomachs may be considered more than an equivalent for the eight worker honeybees already mentioned. A few cateroll lars are eaten, mostly belonging to the group commonly known as cutworms, all the species of which are harmful.

About 11 per cent of the food consists of small native fruits, comprising some thirty common species of the roadsides and thickets, as dogwood berries, elderberries and wild grapes. The kingbird is not reported as eating cultivated fruit to an injurious extent, and it is very doubtful if this is ever the case.

In the western states the Arkansas kingbird is not so domestic in its habits as its eastern relative, preferring to live among scattering oaks on lonely hillsides, rather than in orchards about buildings. The work it does, however, in the destruction of noxious insects fully equals that of any member of its family. Like other flycatchers, it subsists mostly upon insects taken in midair, though it eats a number of grasshoppers, probably taken from the ground. The bulk of its food consists of beetles, bugs, wasps and wild bees. Like its eastern representative, it has been accused of feeding to an injurious extent upon the honeybee. In an examination of 62 stomachs of this bird, great care was taken to identify every insect or fragment that had any resemblance to a honeybee; as a result, 30 honeybees | the cream. were identified, of which 29 were males or drones, and one a worker. These were contained in four stomachs, and were the sole contents of three; in the fourth they constituted 99 per cent of the food. It is evident that the bee-eating habit is only occasional and accidental, rather than feed box right after feeding the milk, habitual; and it is also evident that

maintained, the bird would be of more benefit than harm to the aplary.

The Cassin kingbird has a more southerly range than the Arkansas flycatcher. Examination of a number of stomachs shows that its food habits are similar to those of others of the

group. Three points seem to be clearly es tablished in regard to the food of the kingbirds-(1) that about 90 per cent consists of insects, mostly injurious species; (2) that the alleged habit of preying upon honeybees is much less prevalent than has been supposed, and probably does not result in any great damage; and (3) that the vegetable food consists almost entirely of wild fruits which have no economic value.

All of the kingbirds are of the greatest importance to the farmer and fruit grower, as they destroy vast numbers of harmful insects, and do no appreciable damage to any product of

CHICKENS AND THE GARDEN

Learn How to Get Best Results From Different Ways of Feeding, Housing and Breeding.

A student at one of the agricultural normal school short courses in agriculture gave the following answer to the question, "What objects are to be obtained in the study of poultry and garden?"

The objects to be obtained in the study of chickens and garden are to earn how to get the best results from the different ways of feeding, housing and breeding; which are the best prayer to be said at night and not in breeds and how to keep them pure the afternoon of an African hell." and get the most profit from them at the least expense.

In gardening, how to get the most

Chickens and gardening may be garden will furnish food for the rose and mimosa flower, and still pant articulate voice of the desert. Great each year to get better results.

The greens for the chickens may be not occupied by the chicken coop. The gently, by a tune, to safety. chickens are to be shut up all the time except, perhaps, about an hour each lze that he was alone on the vast evening.

LEACHING CAUSES BIG LOSS

Leaving Manure in Pile Reduces Its Plant Food Value-It Should Be Spread on Ground.

Fifty per cent of the value of manure is lost by leaching if it is left in a pile for six months, says R. I. Throckmorton, assistant professor of soils in the Kansas State Agricultural college. To get the greatest value from manure, it should be spread directly on the ground, so as to give the rain a chance to wash the plant food into the soil.

Piling the manure in the field to so enriched that small grain will lodge if planted there. The labor is also increased.

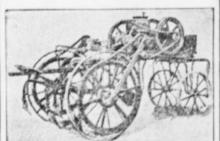
It is a good plan, advised Professor Throckmorton, to spread manure thinly as a top dressing for wheat or alfalfa land during the fall or winter. It is also valuable as a top dressing on plowed ground but should be harrowed in the spring. It is better to put 40 tons of manure on four acres than 40 tons on one acre.

If much live stock is kept on the farm, the bottom of an old straw live, to make his mark and to win her luggage, and from her own chair stack should not be used on the field. Use it for bedding first and it will be greatly increased in value.

CULTIVATOR OF NEW DESIGN

Device, Recently Perfected, Has Given Satisfactory Performance-Motor Is Set High.

A new type of gasoline-driven cultivator, recently perfected, has given satisfactory performance under test. The motor is set high above the front



A New Gasoline-Driven Cultivator.

truck, and is connected to the rear

FEED GRAIN TO THE CALVES

Suitable Mixture Can Be Made of Two Parts of Cracked Corn and One Part of Wheat Bran.

A little grain should be fed as soon as skim milk feeding begins, in order to replace the butterfat removed in

Two parts, by weight, of cracked corn and one of wheat bran make a of a loved one during the night. good grain mixture, which every farmer can readily secure, and requires no especial preparation.

The calf should be taught to eat this grain by sprinkling a little of it in the No more grain should be fed than if this ratio of drones to workers were the calf will clean up readily.

HISLOVE STOR MARIE VAN VORST

ILLUSTRATIONS OF RAY WALTERS

SYNOPSIS.

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Le Comte de Sabron, captain of French cavalry, takes to his quarters to raise by hand a motherless Irish terrier pup, and names it Pitchoune. He dines with the Marquise d'Esclignac and meets Miss Julia Redmond, American heiress, who sings for him an English ballad that lingers in his memory. Sabron is ordered to Algiers, but is not allowed to take servants or dogs. Miss Redmond offers to take care of the dog during his master's absence, but Pitchoune, homesick for his master, runs away from her. The Marquise plans to marry Julia to the Duc de Tremont. Unknown to Sabron, Pitchoune follows him to Algiers. Dog and master meet and Sabron gets permission from the war minister to keep his dog with him. Julia writes him that Pitchoune has run away from her. He writes Julia of Pitchoune. The Duc de Tremont finds the American heiress capricious. A newspaper report that Sabron is among the missing after an engagement with the natives causes Julia to confess to her aunt that she loves him. Sabron, wounded in an engagement, falls into the dry bed of a river, and is watched over by Pitchoune. -7-

CHAPTER XIII-Continued.

"But," Sabron said aloud, "it is a He began to climb; he pulled him-

self along, leaving his track in blood. He fainted twice, and the thick forgotten Pitchoune. profit from soil without robbing it of growth held him like the wicker of a studied together to mutual advantage ing down. He finally reached the top unbroken. Not even the call of a by having two lots, one for the chick. of the bank and lay there panting night-bird-not even the cry of a hyens and the other for the garden. The Not far distant were the bushes of ena-nothing came to him but the inchickens and the family also and the ing, weaker and ever weaker, his cour and solemn awe crept up to him, crept manure of the hens will keep the soil age the only living thing in him, Sab up to him like a spirit and sat down fertile and productive. The chicken ron, with Pitchoune by his side, by his side. He felt his hands grow

his mind traveled far into vague fan- through his mind that this, indeed, was grown in the end of the plot which is tastic countries, led back again, ever death, desert a absolute in the heart

> Every now and then he would realdesert, destined to finish his existence here, to cease being a human creature and to become nothing but carrion. those of mental disorder. Every now girl. Those who know these girls and then he would feel Pitchoune know what their temper and mettle close to his arm. The dog licked his are, and that they are capable of the hand and the touch was grateful to finest reverber tion. the deserted officer. Pitchoune licked growing momentarily weaker.

ical man was uppermost.

He groaned for water, he groaned for relief from pain, turned his head rather asserted herself. from side to side, and Pitchoune

Then Sabron violently rebelled and eried out in his soul against fate and of luggage I am sure about." destiny. He could have cursed the day he was born. Keenly desirous to everything a man values, why should in the shady part of the deck glanced he be picked and chosen for this lone- toward her niece, whose eyes were on ly pathetic end? Moreover, he did not her book. wish to suffer like this, to lose his grasp on life, to go on into wilder thought the Marquise d'Esclignac. delirium and to die! He knew enough had first dragged himself into the fortune. Julia would have been charmshade he had fainted, and when he ing as love in a cottage, whereas came to himself he might have I stanched his blood. His wound was hardly bleeding now. It had already Parc Monceau, her chateau by the young to die

stretching on all sides like a rosy sea. Along the river bank the pale and delicate blossom and leaf of the mimosa the evening and the smell of the miweeds came to him, aromatic and wings. sweet. Above his head the blue sky was ablaze with stars and directly over him the evening star hung like a crystal lamp. But there was no beauty in it for the wounded officer who wheels by chain drive, while the riding looked in vaineto the dark shadows on seat is suspended at the rear in much | the desert that might mean approachthe same way as in an ordinary riding ing human life. It would be better to die as he was dying, than to be found by the enemy!

The sea of waste rolled unbroken as far as his fading eyes could reach. He sank back with a sigh, not to rise again, and closed his eyes and waited. He slept a short, restless, feverish sleep, and in it dreams chased one another like those evoked by a narcotic, but out of them, over and over again came the picture of Julia Redmond, it. The marquise grew sentimental, words were a prayer for the safety

From that romantic melody there seemed to rise more solemn ones. He came from Rouen originally, where Puyster from Schenectady than the Katherine Bement Davis, commissionthere is one of the most beautiful Marquise d'Esclignac. cathedrals in the world. The music rolled and rolled and passed over the

desert's face. It seemed to lift his spirit and to cradle it. Then he breathed his prayers-they took form, and in his sleep he repeated the Ave Maria and the Paternoster, and the words rolled and rolled over the desert's face and the supplication seemed to his feverish mind to mingle with the stars.

A sort of midnight dew fell upon him: so at least he thought, and it seemed to him a heavenly dew and to cover him like a benignant rain. He grew cooler. He prayed again, and with his words there came to the young man an ineffable sense of peace. He pillowed his fading thoughts upon it; he pillowed his aching mind upon it and his body, too, and the pain of his wound and he thought aloud, with only the night airs to hear him, in broken sentences: "If this is death it is not so bad. One should rather be afraid of life. This is not difficult, if I should ever get out of here I shall not regret this night."

Toward morning he grew calmer, he turned to speak to his little companion. In his troubled thoughts he had

Sabron faintly called him. There cradle, and before he came to his con- was no response. Then the soldier sciousness the sun was mercifully go- listened in silence. It was absolutely yard and garden can be alternated dragged himself into healing hands. | cold, and his feet grow cold. Now, un-All that night Sabron was delirious; able to speck aloud, there passed of the plains

CHAPTER XIV.

An American Girl.

The Marquine d'Esclignac saw that Moments of consciousness succeeded she had to rockon with an American

Julia Redmond was very young. his master's cheek and Sabron felt Otherwise she would never have let that there was another life beside his Sabron go without one sign that she in the wilderness. Neither dog nor was not indifferent to him, and that man could long exist, however, with she was rather bored with the idea out food or drink and Sabron was of titles and for unes. But she adored her aunt and saw, moreover, some-The Frenchman, though a philoso theig else than tibbons and velvets in pher, realized how hard it was to die the make-up of the aunt. She saw unsatisfied in love, unsatisfied in life, deeper than the polish that a long having accomplished nothing, having Parisian lifetime had overlaid, and be scattered later is not a good plan. Wished many things and realized at she loved what she saw. She respected The place where the pile lay will be an early age only death! Then this her aunt, and knowing the older lady's tating until now.

Now the American girl woke up, or

"My dear Julia," said the Marquise whined softly. Sabron was not strong d'Esclignac, "are you sure that all the enough to speak to him, and their tinned things, the cocoa, and so forth, voices, of man and beast, inarticulate, are on board? I did not see that box."
mingled—both left to die in the open. "Ma tante," returned her niece from her steamer chair, "it's the only piece

At this response her aunt suffered a slight qualm for the fate of the rest of

"What a practical girl she is," "She seems ten years older than I. of injuries to feel sure that his wound | She is cut out to be the wife of a poor alone would not kill him. When he man. It is a pity she should have a

She remembered her hotel on the died! Fatigue and thirst, fever would Rhone, her villa at Biarritz-and finish him, not his hurt. He was too sighed. She had not always been the Marquise d'Esclignac; she had been With great effort he raised himself an American girl first and remembered on his arm and scanned the desert that her maiden name had been De Puyster and that she had come from Schenectady originally. But for many years she had forgotten these things. ay like a bluish veil, and the smell of Near to Julia Redmond these last few weeks all but courage and simplicity mosa flower and the perfumes of the had seemed to have tarnish on its

Sabron had not been found. It was a curious fact, and one that transpires now and then in the history of desert wars-the man is lost. The captain of the cavalry was missing. and the only news of him was that he had fallen in an engagement and that his body had never been recovered. Several sorties had been made to find him; the war department had done all that it could; he had disappeared from the face of the desert and even his bones could not be found.

From the moment that Julia Redmond had confessed her love for the Frenchman, a courage had been born in her which never faltered, and her aunt seemed to have been infected by and she sang to him the song whose found out that she was more docile and impressionable than she had believed herself to be, and the veneer and etiquette (no doubt never a very real part of her) became less important heard the rolling of the organ in the than other things. During the last she says they leave shattered in nerve cathedral in his native town, for he few weeks she had been more a De and unable to fight against the drug.

> "Ma tante," Julia Redmond had said to her when the last telegram criminals are drug flends.

was brought in to the Chateau d'Escitgnac, "I shall leave for Africa tomor-

"My dear Julia!" "He is alive! God will not let him die. Besides, I have prayed. I believe in God, don't you?"

"Of course, my dear Julia." "Well," said the girl, who e pale cheeks and trembling hands that held the telegram made a sincere impression on her aunt, "well, then, if you believe, why do you doubt that he is alive? Someone must find him. Will you tell Eugene to have the motor here in an hour? The boat sails tomorrow, ma tante."

The marquise rolled her embroidery and put it aside for twelve months. Her fine hands looked capable as she did so.

"My dear Julia, a young and handsome woman cannot follow like a daughter of the regiment, after the fortunes of a soldier."

"But a Red Cross nurse can, ma tante, and I have my diploma."

"The boat leaving tomorrow, my dear Julia, doesn't take passengers." "Oh, ma tante! There will be no other boat for Algiers," she opened the newspaper, "until . . . oh, heavens!"

"But Robert de Tremont's yacht is

in the harbor." Miss Redmond looked at her aunt

speechlessly.

"I shall telegraph Madame d' Haussonville and ask permission for you to go in that as an auxiliary of the Red Cross to Algiers, or rather, Robert is at Nice. I shall telegraph him." "Oh. ma tante!"

"He asked me to make up my own party for a cruise on the Mediterranean," said the Marquise d'Esclignac thoughtfully.

Miss Redmond fetched the telegraph blank and the pad from the table. The color began to return to her cheeks. She put from her mind the idea that to catch hundreds of small fish alive, her aunt had plans for her. All ways and this marks the beginning of a new were fair in the present situation.

dispatch, a very long one, slowly. She the small fish will be sold as aquarium said to her servant:

"Call up the Villa des Perroquets at Nice. I wish to speak with the Duc de



She Was Bored With the Idea of Titles and Fortunes.

Tremont." She then drew her niece very gently to her side, looking up at her as a mother might have looked 'Darling Julia, Monsieur de Sabron has never told you that he loved you?" Julia shook her head.

'Not in words, ma tante."

There was a silence, and then Julia Redmond said:

"I only want to assure myself that he is safe, that he lives. I only wish to know his fate."

"But if you go to him like this, ma chere, he will think you love him. He must marry you! Are you making a serious declaration." "Ah," breathed the girl from be-

tween trembling lips, "don't go on. I shall be shown the way." The Marquise d'Esclignac then said,

musing: "I shall telegraph to England for provisions. Food is vile in Algiers.

Also, Melanie must get out our summer clothes." "Ma tante!" said Julia Redmond, 'our summer clothes?"

"Did you think you were going alone, my dear Julia!" She had been so thoroughly the

American girl that she had thought of nothing but going She threw her arms around her aunt's neck with an abandon that made the latter young - as Marquise d'Esclignac again. kissed her niece tenderly.

"Madame la Marquise, Monsieur le Duc de Tremont is at the telephone," doorway.

(TO BE CONTINUED.)

Criticizes Hospitals.

Mrs. W. K. Vanderbilt has given much time and money to the question of the selling of drugs and the treatment of those who become victims. which the city of New York takes care She now declared the manner in which the city of New York takes care of the drug "flends" a hideous farce. After ten days the victims are sent out of the hospitals "cured." and er of charities in New York, says that between 35 and 50 per cent of all the

Philadelphians Have Discarded Hook and Line.

Of Course There Will Be Some Who Will Not Readily Belleve This Story, but There Always Are Skeptics.

When you go fishing you take a pole and reel and wind up your line when you get a bite. You probably have a hook on the end of your line with bait on it, and occasionally get a fish. Well, you're wasting time. If you doubt it, join the Fish Liars' club.

Members of the club were out today on the Delaware pulling up fish by the hundreds. For the first time they used the automatic magnetic scoop. This device is just what the name im-



11/2

plies. It attracts and then captures. Furthermore, it enables the fishermen era for the club. After sorting out The Marquise d'Esclignae wrote her all the large fish for feasting purposes pets. Many Delaware sunfish have a decidedly blonde tinge and could readily pass for goldfish.

Members of the club believe if they are kept in fresh, clean water they will never tarnish.

But as to the magnetic scoop. It was designed at a meeting of the club in the back room of Harvey C. Mc-Carthy's cigar store up in Kensington, and was patented by Bill Harrison, the

well-known angler. The scoop is made of steel and is sunk in the water on two long chains. The chains are attached to a universal crane, which is carried on a boat. One of the chains operates the lid of the scoop, while the other drags the scoop along. The interior of the scoop is coated with beef juice and sulphur, and as it plunges through the water appetizing odors are emitted. This attracts the fish. They peep in the scoop to see what it is all about and

the lid immediately goes down. You may ask: "How does the fisherman know when the scoop has fish in it." They can tell by the weight on the boat and when they find the

pulling is getting harder. In a short trip from Shackamaxon street wharf to Riverton the club caught 971 pounds of perch, weak fish and cattles The new device will also be used on Sunday, and the fellows with the poles and lines along the wharves better bring some newspapers to read, for most of the fish will follow the scoop.-Philadelphia Record,

Old Fashions Return With the War. Among the many changes that the war is bringing into the streets and the home some of the most significant are so quiet and unobtrusive that people hardly notice them. One of these is the change that has come over the look of households of persons of fastidious tastes and strict esthetic conduct. Formerly the idea of a mounted photograph (except perhaps a reproduction of an old master) was thought to be quite banal and terribly suburban. Today you find their mantelpieces crowded with photographs, some even pinned on the wall without the slightest regard for spacing and arrangement-details which formerly would have taken an afternoon's thought to settle. Our artistic houses are being ruined without a single regret. Another reversion to simpler days is the return of the old-fashioned hair broom with its little oblong frame of gold prettily wrought inclosing a tiny panel for a strand of hair. Some of them are originals bought in curio shops or rummaged out from old cases, but the hair in them today is young and newly cut .-Manchester Guardian.

Influence of Dams on Fish.

The influence of river dams on fisheries seems to be only very imperfectly understood; and the effects on fishes and mollusks of the new barrier across the Mississippi at Keokuk, Ia., are being investigated by the the servant announced to her from the United States bureau of fisheries. At this place unusual facilities for the study of fish migration are afforded. Important fishery developments in the great river lake created are expected, and it is believed that the increased fish supply will after a time largely compensate for loss of crops on

drowned farm lands. Imitation Air Travel.

Imitation flight is the novel recreation idea of Henry Salsbury of London. A car suspended above the ground is given the motions of a flying aeroplane, and motion pictures, taken from an elevation during actual flight, are projected upon the surface, giving the occupants of the car a complete illusion of traveling along through the air.