alone in Mulberry street. From behind the gren swinging door which led from his private office to the assembly room and the Rogues' Gallery he could hear a rumble of voices while the detective sergeants talked over the crooks who had ben "stood up" at roll call for identification and future remembering. The system of memories at Police Headquarters is primary, but undeniably effective.

He could even distinguish the click of the brass catches as some one searching through the "gallery" unloosened panel after panel of the hinged wall photograph album. The chief's brows were contracted and he pulled at his beard. He had not been head of the Central Office for many months, and, besides, he was alone and might allow himself momentary relaxation of feature forbidden him in the presence of his subordinates, who must be impressed with an offi-

It was annoying-worse than annoying-it was dangerous. The murder was a week old, and already the newspapers were in full cry over the inefficiency of the department. He knew that the Detective Bureau was expected to "make good." And "making good" meant making arrests. If the situation had not been a desperate one he would not have ordered the bringing in The Rat the night be-Warren and Murphy had taken him in McTurk's, with the Sing Sing cell chalk tint still in his face. He had not been out six weeks, and he was very drunk. And so the Rat had been taken, and the chief of the detectives had sent across the street to say that reporters might call at four and be told how the mystery had been solved. He sighed heavily as he reflected, for the Detective Bureau was more to be desired than a precinct. And he had been long enough in uniform to relish the privilege of wearing citizens' clothes, to say nothing of having his picture printed in the newspapers a great many times, with astute remarks upon crime which he frequently distributed, neatly typewrit-

He looked at his watch. It was half after three. Then he leaned forward in his chair and touched an electric desk button. A uniform sergeant responded. The chief nodded. "Harry' he said, "bring in The Rat."

The green door opened and closed. and opened again as The Rat entered. He slouched half way across the room, and, turning, glared at the chief, who said "Good morning" affably enough and pointed to a chair placed so that the light from the courtyard would strike the face of its occupant fairly. His appearance did not belie his title-this man-The Rat. He was a sharp featured, stunted creature, with thin hair tha grew far down upon his neck and clustered about his eyes, which were set strangely close together. His mouth lacked the curve of expression, without which no mouth is human; and the upper lips was so

ugly sneer. Not a pleasant spectacle to dwell upon was The Rat. The chief looked at him hungrily. "If I could only make him stand for it," he thought, "it would be the pretort of a story. He looks the part. The papers would print diagrams of his head, and sent women reporters to write about inherited criminal instinct. It would square me for six months." This is what the chief

thought. What he said was, "So

short that it gave one the impression

of being continually drawn back in an

you've come back to us, eh" The Rat swore. "Cut that out," said the chief, pleasantly. "You're sober now. We're only holding you till you tell us where you were Tuesday night That's all. They found 'Dutch' Gallagher over on Crystal Square early Wednesday morning. There was a knife and a red handkerchief, Rat. These!" With a quick movement the chief whipped the knife and handkerchief from the top drawer of his desk and held them towards the prisoner. Rut The Rat was emotionless. He looked at the detective and the ob jects he held in his hand. There was no surprise or fright, only hatred in his care

The chief leaned over the deak. His voice was soft and almost appealing. It came from between his lips that were well-nigh locked, and he touched The Rat's arm. "It's silk with a

The prisoner swore again-comprehensively. "I ain't afraid of your third degree," he snarled. "Bring it along. I know it's coming. They told me all about it up the river. There's a greengoods man up there in tier 7, named Burke. He works in the bakehouse because he ain't no good on the stone plies. He's got one side of his face stove in, and three fingers twisted together where two of your wardmen give him the jitsu turn. You d a stoolpidgeon to squeal on him, and because he wouldn't split on a pal, you done him." The man's voice rose to half a scream. "You done him," he howled, "just as you'll do me."

"Don't be a fool," said the chief utly. There were beads of perspiration on his brow. He would have liked to beat in the face of the sodden creature in front of him. But instead he purred to him. "This was different, Rat," he said wheedlingly. "Galla-gher was drunk. You know he was

The chief of the detectives sat | in self-defence. You understand-in self-defence. The Rat leered openly. street f'r you,," he chuckled with a cunning look. "Doyers street and the

long pipe dreams." The chief threw himself back in his chair, disgustedly. The electric fan whirred upon the shelf above his head, fluttering the loose desk papers, and twisting awry the coarse red locks about The Rat's forehead. Otherwise it was very still, and it was also very warm. They had taken the bracelets of the prisoner, and he sat twiddling his greasy felt hat between uncertain thumbs. The chief chewed an unlighted cigar and walked to the open window. As he stood gazing gloomily down into the gray courtyard, there came the sudden flourishing notes of a street plano, playing to the urchins from Mott street on the strip of asphalt beyond. He could hear the echo of the happy children's voices while they flocked to the music box. He knew just how it looked, although the

dirty brick wall hid it from him. There was the smiling-faced Italian girl with the tambourine, gathering the nickels from the idlers strung precariously along the iron basement railing, watching the dancing. Even the nurses from St. Barnabas's Home next door were peeping appreciatively out of the downstairs windows. The piano was finishing the final bars of the intermezzo from "Cavalleria Rusticana," left over from the last stopping place on Elizabeth street. The

chief wondered why. Then here was a quick pause as the man at the crank turned the change stop, and a gay waltz tune floated over the brick wall into the courtyard. By the shrill little cries of delight that followed it, the chief knew the children were dancing. He turned away from the window dejectedly. The piano rasped upon his nerves. As he turned he saw the Rat sitting upon the edge of the chair, his head raised towards the sound of the playing, and swaying stared for an instant and then slid softly into his seat behind the desk, as the street piano rippled:

"There's just one girl in the world for Only one girl has my sym-pa-thee.

She's not so very pretty, nor yet of high degree, But there's just one girl in this world

for me.' The Rat was mumbling to himself and smiling as if he were remembering something pleasant. His lips were curled back to the gums, and his enjoyment was not edifying, and when his gaze wandered past that of the chief, the head of the Detective Bureau knew that it penetrated the gray cartridge paper of the wall behind him, and knew, too, that 'The Rat's mood was far flung. The man was still jerking his head with the staccato tempo of the piano,

'Coney. Coney and two camp-stools on the deck by the dago fidlers both ways," he muttered. He said it aloud, but it was as if he were talking to himself. The chief's hand moved towards the electric push-button and then paused irresolute. The outpouring notes of the street piano trickled like cool water through the room closeness.

Coney in the summertime," repeated The Rat vacuously. "It's God's own country. Coney f'r me of a Sunday afternoon wit' the sunshine and the trolleys jamful 'S the limit, what!' He swelled out his sparrow chest proudly towards the playing: "S the limit," he chuckled. "Wit' a shine and a new celluroid rim on and nickel stogie in yer transom, yer on f'r yer money, and yer it. Say, I've danced in Stauch's wit' Mame."

The Rat's voice softened almos imperceptibly, but the chief caught the change and gripped the sides of his chair, breathing irregularly as if afraid to break the spell.

"There was a job of dishwashin' at the Tivoli; six plunks comin' reg'lar every week wit' now and then a small pik in the pool room over the Volks Garden. I was wearin' real clothes and I made good. It was me swell front what won out wit' Mame. I wasn't pretty, but me front sent me home in a canter. And Mame wasn't no chowder party pal. She'd a mem'ry overnight and a good eye f'r a white man. And the man what says she was struck on 'Dutch" Gallagher's a

"There's just one girl in this world for me," rippled the piano from outside, with a final burst of treble. Then the music ceased suddenly with the hollow knock the lid of a box makes when it is let fall. And at the sound, The Rat's head drooped upon

his breast again. The chief's right hand crept slowly to the pencil tray and scrawled a few words upon a piece of paper which he gently tore from a yellow pad. "Keep the Guiney playing. Don't let him stop," the pencil traced. He looked furtively at The Rat. The little man's head was still sunken upon his soiled waistcoat, and he did not notice when the other tiptoed to the green door and thrusting a hand out beyond, tiptoed back again to the desk, waiting. The renewed tinkle of the piano floated into the courtyard, and the de ective smiled as he distinguished the It was the refrain of a sentimental ballad, which made the audience at Tony Castor's applaud wet-eyed. The chief had watched them do

···· the shrunken man before him expotantly.

Seems to me it sounded like the birds at play.

Sue, dear, don't believe I'm chaffing Bless your heart, I love you in the same old way."

Slowly The Rat raised him from his lethargy. His bent shoulders quiver-ed, and he was no longer the huddled heap in the chair, inert and limp. Up went his head as he listened-up, un til his gaze met that of the chief. "Look here," he said hoarsely. "He

let her starve. He let her starve on the top floor of a Cannon street tene mnt. I wasn't wise to it up the river. I wasn't wise to it. I kept hammering away on a Sing Sing stone pile, thinkin' he was lookin' after her. Why I believed him square. It was stripes and the stone pile f'r me, and f'r him the Bowery of a Sat'rday night wit' the easy come-ons ready waitin' on the pavement.

"He come ter see me in the Tombs before they took me up., Til look after Mame, s'elp me,' he said. And wit' that I horsed the deputies in the smokin' car and give me pedigree in the warden's office like the real thing. I thought 'Dutch' was right. The calendar ain't turning like no roulette wheel up at Sing Sing. But it went a heap faster wit' the letters from 'Dutch' what give Mame's love at the end. Mame didn't write. She wasn't no scholar. And how was I to know that 'Dutch' was lvin'?"

The Rat halted waveringly. But the piano refrain sent him plunging "They took me good conduct on. time off and I got me ticket of leave. And I was f'r the home route wit' a new suit of paper clothes and me stone-pile cush in 'em. I hadn't let 'em know I was comin'. I wanted to surprise Mame. It was dark w'en I got ter Cannon street. I meets Sweeney, the janitor, on the top of the stoop, after rushin' the can. 'Fifth floor?" I asks, thinkin' maybe Mame had moved. Sweeney eyes me and says, 'Wot're you handin' me?' 'Mame Gilligan, you mutt,' I says, and pushin' past him made as if ter go upstairs.

"Sweeney crossed himself, and wit" that I knowed there was somethin' gone wrong. It struck me cold be fore he spoke, and I've never felt warm since—but once." The Rat's to the echoing rhythm. The chief yellow teeth rasped against one another like a terrier worrying a bone. He went on thickly.

"'Didn't they put you next?' says Sweeney. 'Next ter what?' I asks. 'Mame Gilligan's dead in Bellevue these six months' he says."

The Rat put one hand to his head painfully. "When Sweeney says that somethin' busted in here," he said. I've been gone a bit in me nut ever since, but not too much gone f'r findin' 'Dutch' Gallagher. Why, a dog wouldn't have treated Mame the way he'd done it. She'd been starved. The ambulance doctor what come when Sweeney found her senseless in the hall said she hadn't ben eatin' enough f'r weeks. 'Dutch' had left her. She'd hocked everything she had except the ring I'd bought her. They buried her wit' that on. He'd been writin' to me and sendin' Mame's love after she was dead, and he knowed it. I'd been doin' the time f'r both of us, and he'd let Mame starve.

Calmly The Rat's hand went out to where the knife lay upon the desk by the stained handkerchief. The chief did not stop him. His breath was coming and going in little puffs, and his mouth was trembling at the corners, as if he were trying to be very if we get up to 101 we are very uncalm and found it hard work. The Rat took up the knife as he might have grasped a friendly old pipe. He crooked his fingers about the handle and weighed the blade in his grasp. It was all mechanically, jerkily done.

"He was dealin' faro in a brace game on Fourteenth street," he said. 'I waited f'r him that night. And when I seen him leave I followed him. When he got to Chrystie street I was wit' him, but he didn't know it. I sneaked up them stairs behind him quiet as death, and when I turned around at the top landin' ter look by the gaslight if anyone was followin' I seen Mame walkin' up after me and pointin' toward 'Dutch' on ahead, and knewed then I was doin' what was right.'

The Rat's voice wavered for the moment. His lips parted drily, and he licked them with a swollen tongue. It was as if he were going on. Then, of a sudden, there came the hollow sound of the street plano stop, as the Italian at the crank changed tunes. The chief started to his feet with a smothered curse. In through the open window crept the music;

"Break the news to mother. Just tell her that I love her. Just say to her I-

Like one startled from an awful fream, The Rat shivered and rolled his eyes in a quick effort to find their true focus. His stare fell upon the face of the eager watcher, and then upon his own hands with the open knife. Outside, the street pland walled industriously. The detective met his rush with the heavy nickel butt of the telephone receiver fair

upon the forehead. From behind the green swinging doors rushed two in uniform. They looked from the unconscious man to the chief, who was tugging at beard with his arms crossed. "And the papers will say we gave him the "Third Degree," he said smiling

To a little group in the room came the incessant vox humana of the street hurdy-gurdy.

"Take him out," "He'll be all right in an shortly. hour." And for God's sake stop it more than once. So he stared at plano."-Nev York Post.



Babyland. "How many miles to Baby-land?"
"Any one can tell;
Up one flight,
To the right;
Please to ring the bell."

"What can you see in Baby-land?"
"Little folks in white-Downy heads, Cradle-beds, Faces pure and bright."

"What do they do in Baby-land?"
"Dream and wake and play,
Laugh and crow,
Shout and grow;
Jolly times have they!"

"What do they say in Baby-land?"
"Why, the oddest things;
Might as well
Try to tell
What a birdie sings!"

"Who is the queen of Baby-land?"
"Mother, kind and sweet;
And her love,
Born above
Guides the little feet."

George Cooper, in Indianapolis News

What O'clock is it? If you carry a watch, all right; if you don't carry one, borrow one for

Lay the watch in your left hand face up and, holding a pencil in your right hand ask some person to think of some hour of the day, from one to twelve. and having deducted it from twenty to remember the remainder.

Your intention, you will say, is to tell him the hour he thought of, and you are going to count around on the dial promiscuously by pointing with your pencil, and when you have counted the number that he was to remember as the remainder he must stop you.

Let us suppose that he thought of five; then the remainder would be fif-You now count, mentally of teen. course, by pointing your pencil to different hour marks, taking care to point to the XII mark at the eighth count. Then count backward in regular rotation to XI, X. IX, etc., and when you come to V, or five, he will stop you, as this well be the fifteenth count, corresponding to the remainder, fifteen, which he was to remember. You then know that five was the hour thought of.

You point to XII at the eighth count because twenty, the number from which the hour is to be deducted, is eight more than twelve. You may vary the number from which the hour is to be deducted, but the differenct between that number and twelce is the count at which you must point to XII and then go backward.

Suppose you tell him to deduct the hour from eighteen. Then point to XII at your sixth count, because eighteen is six more than twelve. A variation of this kind will make the trick all the more mysterious.-New York Herald.

Warmest Living Thing.

Could you name the very warmest living thing in the world, if you were suddenly asked to? It is also one of the prettiest and most wonderful things in the world-a bird.

Probably you know that the ordinary temperature of the human body is 98 degrees. This may rise to 99 and even to a fraction above it, but 100 degrees means that we have fever, and means almost certain death.

The other night on retiring to bed I softly raised my window and brushed the heavy snow off the sill. Instantly I heard a commotion, a beating of little wings; and from the slats of the outside shutter where it had been hiding for shelter flew a sparrow. Ugh! It makes me shudder to think of that tiny thing exposed to the bitter wind and the snow. We look at the saucy little birds in winter, and we wonder how it is that they do not freeze to death; how it is they can survive the dreadful storms.

It is because they carry around with them such a very high temperature, ranging according to species, from 105 to 109. They do not feel cold any more than you feel it when you have a fever; or if they feel it, they don't mind it. The swallow, which is the most active of all birds peculiar to this climate, so active that the Greeks used to say it had no feet, meaning that it never alighted anywhere but was always on the wing, has a normal temperature, while that of a duck, taken under its wing while it was in a state of repose, was found to be 197.

Birds have very short lives, but they enjoy them more than we do; they live faster, so to speak, and know more of exuberance, the pure joy of living, than we can imagine.

Did you ever think, too, how warmly they are clothed? Feathers are warmer than fur. When we human beings want to protect ourselves from the cold of winter we send hunters up to the frozen North to bring down from the breasts of the eider duck. Think of that down! One side of it has lain against that warm breast and the other against the ice flocs! and when we have it made up into quilts or garments we find that it keeps us warmer

than anything else possibly could. It is also wonderful to think how light in weight these feathers are which give such warmth. You see they have to be. A bird could not carry much weight as it cleaves the air, any more than you could when swimming. How exactly the need of the little creature was met when it was clothed in feathers.-Indianapolis

The Troubles of Jackle. It was a very comfortable home. Mother Rabbit had carefully hollowed

out the burrow and made it cosey with hay and dry leaves and lined it with fur from her own breast. Yes those bunny babies were not satisfied. "It is too small," they said. 'Our legs are always getting tangled up." But as Mother Rabbit said, "that was to be expected, as there were seven babies and each had four legs. Besides Jackie always made matters worse. He did so love to play tricks. "And how can a fellow help it?" would answer, "when his eyes are shut so tight he can't see a wink. I wish they'd hurry and open. I guess I'll rub them. Maybe that will help." Rubbing, however, only made them sore, so he soon stopped it. Then one day they opened all by themselves, and he was proud indeed. But very soon he found something to grumble about. "Don't take my fur," he said. "It is too thin.'

"Do stop complaining," answered his mother. "A week ago you had no fur at all. It will be as thick as mine in

"Well, my legs won't get any better, anyhow," he went on. "Just see them. My front ones are ever so much shorter than my back ones. Why are they not alike?"

"For shame!" cried his mother. "Nothing suits you. How could we rabbits take jong jumps if our legs were all the same size? You should see your father jump."

"Our father!" cried all the bunnies. 'Have we a father?"

"To be sure you have," replied Mrs. Rabbit. "When you are a little older we will all go out to see him." After this Mrs. Rabbit had very little peace. Jackie especially was always asking her questions.

"I suppose it is because he has a superior mind," she told herself. Nevertheless, it was very tiresome. At last came the important day when the children were to see their father for the first time. They had grown quite big and were looking very pretty indeed with their new graylah brown topcoats, their whitish vests and their cunning little upturned white tails. Their father was very proud when he saw them. He was a big rabbit, with long whiskers, and very wise in rabbit ways, so of course they learned many things from him. He showed them how to gnaw bark, so that their teeth, which were growing all the time, might not get too long, and how to hold their ears so that they could hear the least sound and run for cover. He also showed them how to crouch down among the grass and leaves and lie so still that an enemy would never guess they were there. Besides this he told them where they could find the juicy young vegetables and the tender green things that rabbits so love.

No wonder they felt very, very wise as they scampered home after the talk was over.

"Tomorrow I shall try all those things," Jackie decided. But alas! in the morning their mother came to them in great trouble. "My children," she said, "the reapers are out. They are coming nearer and nearer, and soon our home will be torn open and we ourselves killed perhaps. There is no time to talk,' she went on, seeing a question on Jackie's lips, "do just as I tell you. I will wait until those dreadful men are looking the other way. Then, when I say 'run,' don't stop a second, but follow right after me. I know a good hiding place if we can

Of course the little bunnies were terribly frightened. That is, all except of such tools is to wipe the polished Jackie. He was more anxious to find out what made the strange noise he heard. So when his mother, waiting her chance, cried "run," he went only a few steps beyond the burrow and there stopped. "I'll soon see what it is." he said to himself. But alas! just then some one called: "There goes a bunny. Catch him, quick!" and before he had time to jump a hand was outstretched and he found himself a prisoner.

Now, indeed, he regretted not obeying his mother. Oh, how good he would be if he could only get back to her once more! he thought, but struggle as he would, he could not get away. So, with his heart beating wildly, he trice to resign himself to his fate. At last, after what seemed a long, long time to unhappy Jackie, the voice said: "Poor little bunny, he does seem so miserable. I think I must let him so. I wonder if he can find his mother.'

Jackie's heart leaped with joy. "Yes, "and, oh, I'll be so good after this!so good!" Then, all at once, the terrible hands seem to fall away from him and for one delicious moment he could not move, so great was his hapiness. In the next he had darted away, just as straight as he could go for the thicket where his unhappy watched and waited.

And how she fondled him! Smoothing out his roughened coat and rubbing her nose against his little wrinkled one. His brothers and sister, too, gathered about him and told him how

glad they were to have him back. "Oh, mother, dear, I mean to be so good," whispered Jackie, as his mother tucked him into bed that night. And she, giving him a loving pat, answered: "I believe you mean to try, Jackie."-Louise Jamison, in Birmingham (Ala.) Age Herald.

Quite the Thing. Editor-I'm surprised that Nuritel

column about his going to Europe. Reporter-Well, you see, he wants to give the impression that he's so shouldn't excite comment at Philadelphia Press.



Manure and Fertilizer.

The "American Fertilizer" reminds its readers that the farmer who uses manure and fertilizer thereby gains from the soil more than he applies, be cause the materials which he adds to the soil serve to render soluble the inert plant foods existing in the soil; and as it takes capital to make money in business, so it takes manure and fertilizers to make the soil more subservient to the demands of the farmer. Every dollar expended for plant food to be applied to the soil is an investment which in the future is sure to bring good returns, because of the abundance of raw materials existing in the soil ready for use when proper methods are applied for deriving them from the vast stores which are always in reach with the aid of suitable appliances. The growing of green crops for manure benefits the land not only by returning to the soil that which may have been derived therefrom and from the air, but also, through chemical action of plant roots, which have the capacity of changing the characteristics of the various "salts" in the soil, and as the roots of plants appropriate carbonic acid as an agent in neutralizing the alkaline matter, various compounds are formed. Alkalies also neutralize acids, and there is a constant tendency to effect chemical changes by reason of the use of green foods, manures, fertilizers, plaster and lime. The soil is the bank of the farmer upon which he can draw, but he must first make his deposits. Cultivation, tile drainage, the use of certain crops and a knowledge of the characteristics and requirements of the soil will give the intelligent farmer a great advantage over him who does not carefully consider the reserve of plant foods in the soil.

Care of Farm Implements.

Most people seem to think that if the tools and implements are protected from the influence of the sun, they suffer no injury during the rainy and lowering weather. But this is a serious mistake. The influence of any and all kinds of weather, is always more or less injurious to farm implements, whether the various parts are made of fron, or a portion only of iron, and the remainder of wood. As a general rule the injury and damage done to farm implements by unnecessary exposure to the influence of the weather wears out the working parts more than all the labor that is performed with them. And this is more emphatically true along the seacoast, where the sea breezes highly charged with saline material, come in contact with those parts of implements which have polished steel or iron surfaces. Several hundred miles away from the seashore, mechanics experience little difficulty in keeping their saw blades and other steel tools from rusting. But near the salt water, steel plows, saws, cultivator-teeth, polished bearings on mowing machines, steel rake-teath, and all such implements, rust very quickly when not in actual use, if the polished surface is not ciled or varnished. Plows are left frequently standing in the ground with the damp earth in contact with the polished mould-board and land side. The consequence is that a thick scale of rust is found over the entire surface, thus destroying more metal than would actually wear off in some time when the implement is in use. The true way to take care of oleaginous material which has no saline material in it, or to varnish the surface.-The Epitomist.

Comparisons of Dairies.

If those from whom the cows are purchased should take the same view of the matter as the dairyman the animals would soon realize a price that would place them beyond the reach of those desiring them for the dairy, but the breeders of such cows find a profit in keeping calves in order to sell them at maturity to the dairyman. What is the consequence of this mode of conducting a dairy? It is that the dairyman keeps twice as many cows as he should, in order to derive a quantity of milk and butter that may be produced from a smaller number of animals. If the yields from any two dairies are compared it will be noticed that the product of one is different from that of the other, for yes, I will find her," he tried to say, it is an impossibility to collect a herd of common cows of uniform quality, and even if the yields from the two dalries approximate a certain amount a difference will be created by the methods of management, no two dairymen following the same rule. In purchasing such cows they must be taken solely upon the honor of the dealer, and until tested the dairyman cannot know whether he has a bargain or not. Fortunately, our common stock of the present day is better than that of a few years ago, but it is due solely to the infusion of an occasional dash of thoroughbred blood. Observations of many dairies will

reveal the fact that a majority of them use mostly common cows. The term "common" includes not only the scrub native but also those cows that, though somewhat above the average, are unknown to the dairymen so far as their breeding is concerned. The pretext for this is that dairymen can better afford to buy cows than to raise them. didn't want any notice in our society Calves and helfers require room in the stables, and the dairymen are more disposed to utilize such places with cows in full flow of milk rather than swell now that his going to Europe to keep young stock, they believing it a more economical method of doing business.-Philadelphia Record.

Strawberry Culture.

The king of small fruits is the strawberry, says I. M. Merrill, Mich., in The Farmer's Voice. After years of experimenting I have settled down to the raising a few kinds, those of standard excellence and have found my trade

excellence and have found my trade growing year by year.

Where one is situated near a large city the strawberry grower experiences little trouble in disposing of his crop, but away out in the country, away from the great centers of trade, the problem is a far different one, and un-less a man has an aptitude for the work I would advise him to let small fruit entirely alone.

fruit entirely alone. Fruit raising is a business by itself and will ever remain such. The gen-eral farmer had best not dabble in it. To become a successful fruit raiser requires, as I have said, an aptitude for the work, indefatigable industry and a large degree of patience. Possess-ing these there is no danger of a fall-

In my own case I found that it is one thing to raise the fruit and another thing to sell it. People can be educated up to the fruit habit.

When I first set out with a few crutes of berries to seek customers I was truly surprised at the lack of interest displayed by people in general. My first customer was a farmer who-reckoned he'd take a quart for the woman and young ones.

Still another farmer, a wealthy cattle raiser with a large family, refused even to look at my wares, sniffing at the idea that "strawberries" were in any way necessary for the family table. But mark you, this same man is now an eager customer of mine to the tune of from fifteen to twenty crates of berries every year, with no grumble at

He says his folks can't get along without the berries both fresh and canned; and yet before I began selling, the only small fruit the family saw, from year's end to year's end were a few small wild berries,

I had many amusing experiences during my first year in the business, and was at one time well-nigh discouraged but came out with flying colors in the end and lived to rejoice over the victory.

Arguments for Orchard Cultivation. I am aware that there is a strong prejudice in many parts of Massachusetts against the cultivation of apple orchards. This is only prejudice, however, I am sure, and will be overcome in time. I have never yet heard of a. man having an orchard suitable for cultivation who, having once fairly tried good cultivation with modern orchard implements, has afterward gone back to sow his orchard down to grass. On the other hand, I doknow of men who have made the opposite change, namely, from the sod system to cultivation, and who have found it entirely satisfactory. I could show instances of this in some of the largest and best orchards in western Massachusetts and still more so in Vermont, where I have been longer acquainted.

The arguments against cultivation are commonly four: (1) that plowing cannot be done in an orchard: (2) that it injures the trees; (3) that it is tooexpensive; (4) that it injures the quality of the fruit. These objections can be answered very briefly.

1. The objection that it cannot be done is best answered by the fact that it is done-done constantly and on a large scale. It is harder to do in an old orchard which has never been cultivated, and under such circumstances may not be advisable, but, even so, it can often be successfully and profitably accomplished. I have myself oncesurface dry, and oil it with any kind | done this with an orchard of two acres of badly neglected trees between 30 and 40 years old, and the results were entirely satisfactory.

2. If an old uncultivated orchard is put under the plow, the tree roots are considerably torn, and some damage The best proof of this lies in the fact may result. Orchards cultivated from the beginning are absolutely uninjured. (which, by the way, is a fact) that many of the very best orchards in every part of the country are under the plow annually.

3. Cultivation is more expensivethan doing nothing at all, but it pays-

better. 4. There is some show of reason in the statement that cultivation has a bad effect on the fruit. The fruit is sometimes less highly colored and does not keep quite so well. On the other hand, it is larger, sorts better at the sorting table, and brings a larger return to the acre, because there is more of it. Finally, I ought to draw attention to the fact that in the largest, most famous and most successful apple regions of this continent-Nova cotia, upper Ontario, Western New York, Michigan and the great apple belt of the Central States-cultivation is generally recommended and practiced.-Prof. F. A. Waugh for Lowell Journal.

Horse Notes.

A lump of salt should be kept in each manger. The chill should be taken off the

drinking water. Corn in the ear with wheat-bran is

good for variety. Shredded or cut corn fodder is good

for a change in place of hay. The freg should never be cut but left. big pad to take jar and keep the logs sound.

The sharp cold air will not hurt them but never leave them out in storm.

At the end of February increase the feed and be sure they have plenty of exercise in yard or harness, and they w...l be strong and in shape for the hard spring work, with very little ex-