

# A STUDY IN SCARLET.

BY A. CONAN DOYLE.

## CHAPTER II.—Continued.

"From a drop of water," said the writer, "a logician could infer the possibility of an Atlantic or a Niagara without having seen or heard of one or the other. So all life is a great chain, the nature of which is known whenever we are shown a single link of it. Like all other arts, the science of deduction and analysis is one which can only be acquired by long and patient study, nor is life long enough to allow any one mortal to attain the highest possible perfection in it. Before turning to those moral and mental aspects of the matter which present the greatest difficulties, let the inquirer begin by mastering more elementary problems. Let him, on meeting a fellow mortal, learn at a glance to distinguish the history of the man, and the trade or profession to which he belongs. Penitence as such an exercise may seem, it sharpens the faculties of observation and teaches one where to look and what to look for. By a man's finger nails, by his coat sleeve, by his boots, by his trouser knees, by the callouses of his forefinger and thumb, by his expression, by his shirt cuffs—by each of these things a man's calling is plainly revealed. That all united should fall to enlighten the competent inquirer in any case is almost inconceivable."

"What ineffable twaddle!" I cried, slapping the magazine down on the table. "I never read such rubbish in my life."

"What is it?" asked Sherlock Holmes.

"Why, this article," I said, pointing at it with my egg spoon as I sat down to my breakfast. "I see that you have read it, since you have marked it. I don't deny that it is smartly written. It irritates me though. It is evidently the theory of some arm-chair loungers who evolve all these neat little paradoxes in the seclusion of their own study. It is not practical. I should like to see him clapped down in a third-class carriage on the Underground, and asked to give the trades of all his fellow travelers. I would lay a thousand to one against him."

"You would lose your money," Sherlock Holmes remarked calmly. "As for the article, I wrote it myself."

"You!"

"Yes; I have a turn both for observation and for deduction. The theories which I have expressed there, and which appear to you to be so chimerical, are really extremely practical—so practical that I depend upon them for my bread and cheese."

"And how?" I asked involuntarily.

"Well, I have a trade of my own. I suppose I am the only one in the world. I'm a consulting detective, if you can understand what that is. Here in London we have lots of government detectives, and lots of private ones. When these fellows are at fault they come to me, and I manage to put them on the right scent. They lay all the evidence before me, and I am generally able, by the help of my knowledge of the history of crime to set them straight. There is a strong family resemblance about misdeeds, and if you have all the details of a thousand at your finger ends, it is odd if you can't unravel the thousand and first. Lestrade is a well-known detective. He got himself into a fog recently over a forgery case, and that was what brought him here."

"And these other people?"

"They are mostly sent out by private inquiry agencies. They are all people who are in trouble about something, and want a little enlightening. I listen to their story, they listen to my comments, and then I pocket my fee."

"But do you mean to say," I said, "that without leaving your room you can unravel some knot which other men can make nothing of, although they have seen every detail for themselves?"

"Quite so. I have a kind of intuition that way. Now and again a case turns up which is a little more complex. Then I have to bustle about and see things with my own eyes. You see, I have a lot of special knowledge which I apply to the problems, and which facilitates matters wonderfully. Those rules of deduction laid down in that article which aroused your scorn are invaluable to me in practical work. Observation, with me, is second nature. You appeared to be surprised when I told you, on our first meeting, that you had come from Afghanistan."

"You were told, no doubt."

"Nothing of the sort. I knew you came from Afghanistan. From long habit the train of thought ran so swiftly through my mind that I arrived at the conclusion without being conscious of intermediate steps. There were such steps, however. The train of reasoning ran: 'Here is a gentleman of a military type, but with the air of a military man. Clearly an army doctor, then. He has just come from the tropics, for his face is dark, and that is not the natural tint of his skin, for his wrists are fair. He has undergone hardship and sickness, as his haggard face says clearly. His left arm has been injured. He holds it in a stiff and unnatural manner. Where in the tropics could an English army doctor see much hardship and get his arm wounded? Clearly in Afghanistan.' The whole train of thought did not occupy a second. I then remarked that you came from Afghanistan, and you were astonished."

"It is simple enough as you explain it," I said, smiling. "You remind me of Edgar Allan Poe's Dupin. I had no idea that such individuals did exist outside of stories."

Sherlock Holmes rose and lighted his pipe.

"No doubt you think that you are complimenting me in comparing me to Dupin," he observed. "Now, in my opinion Dupin was a very inferior fellow. That trick of his of breaking in on his friend's thoughts with an apropos remark after a quarter of an hour's silence is really very showy and superficial. He had some analytical genius,

no doubt; but he was by no means such a phenomenon as Poe appeared to imagine."

"Have you read Gaboriau's works?" I asked. "Does Lecoq come up to your idea of a detective?"

Sherlock Holmes sniffed sardonically. "Lecoq was a miserable blunderer," he said in an angry voice; "he had only one thing to recommend him, and that was his energy. That book made me positively ill."

"The question was how to identify an unknown prisoner. I could have done it in twenty-four hours. Lecoq took six months or so. It might be made a text book for detectives to teach them what to avoid."

I felt rather indignant at having two characters whom I had admired treated in this cavalier style.

I walked over to the window and stood looking out into the busy street. "This fellow may be very clever," I said to myself, "but he is certainly very conceited."

"There are no crimes and no criminals in these days," he said, querulously. "What is the use of having brains in our profession? I know well that I have it in me to make my name famous. No man lives or has ever lived who has brought the same amount of study and of natural talent to the detection of crime which I have done. And what is the result? There is no crime to detect, or, at most, some bungling villainy with a motive so transparent that even a Scotland Yard official can see through it."

I was still annoyed at his bumptious style of conversation. I thought it best to change the topic.

"I wonder what that fellow is looking for?" I asked, pointing to a staid, plainly dressed individual who was walking slowly down the other side of the street, looking anxiously at the numbers. He had a large blue envelope in his hand, and was evidently the bearer of a message.

"You mean the retired sergeant of marines," said Sherlock Holmes. "Braz and bounce!" thought I to myself. "He knows that I cannot verify his guess."

The thought had hardly passed through my mind when the man whom we were watching caught sight of the number on our door and ran rapidly across the roadway.

We heard a loud knock, a deep voice below and heavy steps ascending the stair.

"For Mr. Sherlock Holmes," he said, stepping into the room and handing my friend the letter.

Here was an opportunity of taking the conceit out of him. He little thought of this when he made that random shot.

"May I ask, my lad," I said, blandly, "what your trade may be?"

"Commissionaire, sir," he said, gruffly. "Uniform away for repairs."

"And you were," I asked, with a slightly malicious glance at my companion.

"A sergeant, sir; Royal Marine Light Infantry, sir. No answer? Right sir?"

He clicked his heels together, raised his hand in a salute and was gone.

## CHAPTER III.

I confess that I was considerably startled by this fresh proof of the practical nature of my companion's theories.

My respect for his powers of analysis increased wondrously. There still remained some lurking suspicion in my mind, however, that the whole thing was a prearranged episode, intended to dazzle me, though what earthly object he could have in taking me in was past my comprehension.

When I looked at him he had finished reading the note, and his eyes assumed the vacant, lack luster expression which showed mental abstraction.

"How in the world did you deduce that?" I asked.

"Deduce what?" said he, petulantly.

"Why, that he was a retired sergeant of marines."

"I have no time for trifles," he replied brusquely; then, with a smile, "Excuse my rudeness. You broke the thread of my thoughts; but perhaps it is just as well. So you actually were not able to see that the man was a sergeant of marines."

"No, indeed."

"It was easier to know it than to explain why I know it. If you were asked to prove that two and two made four, you might find some difficulty, and yet you are quite sure of that fact. Even across the street I could see a great blue anchor tattooed on the back of the fellow's hand. That smacked of the sea. He had a military carriage, however, and regulation side whiskers. There we have the marine. He was a man with some amount of self-importance and a certain air of command. You must have observed the way in which he held his head and swung his cane. A steady, respectable, middle-aged man, too, on the face of him—all facts which led me to believe that he had been a sergeant."

"Wonderful!" ejaculated.

"Commonplace," said Holmes, though I thought from his expression that he was pleased at my evident surprise and admiration. "I said just now that there were no criminals. It appears that I am wrong—look at this!" He threw me over the note which the commissionaire had brought.

"Why," I cried as I cast my eye over it, "this is terrible!"

"It does seem to be a little out of the common," he remarked calmly. "Would you mind reading it to me aloud?"

This is the letter which I read to him:

"My Dear Mr. Sherlock Holmes—There has been a bad business during the night at 3 Lauriston Gardens, off the Brixton road. Our man on the

beat saw a light there about 2 a the morning, and as the house was an empty one suspected something was amiss. He found the door open and in the front room, which is bare of furniture, discovered the body of a gentleman, well dressed and having cards in his pocket bearing the name of 'Enoch J. Drebber, Cleveland, Ohio, U. S. A.' There had been no robbery, nor is there any evidence as to how the man met his death. There are marks of blood in the room, but there is no wound upon his person. We are at a loss as to how he came into the empty house; indeed, the whole affair is a puzzle. If you can come round to the house any time before 12 you will find me there. I have left everything in statu quo until I hear from you. If you are unable to come I shall give you fuller details, and would esteem it a great kindness if you would favor me with your opinion. Yours faithfully,

TOBIAS GREGSON."

"Gregson is the smartest of the Scotland Yarders," my friend remarked. "He and Lestrade are the pick of a bad lot. They are both quick and energetic, but conventional—shockingly so. They have their knives into each other, too. They are as jealous as a pair of professional beauties. There will be some fun over this case if they are both put upon the scent."

I was amazed at the calm way in which he rippled on.

"Surely there is not a moment to be lost," I cried; "shall I go and order you a cab?"

"I am not sure about whether I shall go. I am the most incurably lazy devil that ever stood in shoe leather—that is, when the fit is on me, for I can be spry enough at times."

"Why, it is just such a chance as you have been longing for."

"My dear fellow, what does it matter to me? Suppose I unravel the whole matter, you may be sure that Gregson, Lestrade & Co. will pocket all the credit. That comes of being an unofficial personage."

"But he begs you to help him."

"Yes. He knows that I am his superior, and acknowledges it to me; but he would cut his tongue out before he would own it to any third person. However, we may as well go and have a look. I shall work it out on my own hook. I may have a laugh at them, if I have nothing else. Come on!"

He hustled on his overcoat, and bustled about in a way that showed that an energetic fit had superseded the apathetic one.

"Get your hat," he said.

"You wish me to come?"

"Yes, if you have nothing better to do."

A minute later we were both in a hansom, driving furiously for the Brixton road.

It was a foggy, cloudy morning, and a dun-colored veil hung over the house tops, looking like the reflection of the mud colored streets beneath.

My companion was in the best of spirits, and prattled away about Cremona fiddles, and the difference between a Stradivarius and an Amati.

As for myself, I was silent, for the dull weather and the melancholy business upon which we were engaged depressed my spirits.

"You don't seem to give much thought to the matter in hand," I said at last interrupting Holmes' musical disquisition.

"No data yet," he answered. "It is a capital mistake to theorize before you have all the evidence. It biases the judgment."

"You will have your data soon," I remarked, pointing with my finger. "This is the Brixton road, and that is the house, if I am not very much mistaken."

"So it is. Stop, driver, stop!"

We were still a hundred yards or so from it, but he insisted upon our alighting, and we finished our journey upon foot.

(To be continued.)

## A Crushing Reply.

Referring to the "Pulpit and Paw" question raised by Dr. Horton's interesting experiment, a North London minister writes:

"I think we ministers rather relish criticism, but we get too little of it."

One recalls in this connection the story of the young minister walking home with one of the elders after the deliverance of his first sermon. After some moments' silence the latter observed:

"You were not long."

"I am very glad to hear you say so," replied the youthful cleric; "I was afraid I was tedious."

"Oh," was the crushing reply, "you were tedious."—Westminster Gazette.

## Speaking of Royalty.

Damocles had been invited to dine with the King of Syracuse. On taking his seat he instantly saw the sword hanging by a hair above his head.

"I suppose," he said to the king, "you call that the hair apparent."

Dionysius, pretending to see no humor in the remark, replied:

"I don't know about that, my boy; but if it falls upon your head it will make some crown prints."

This shows that the ancients were not averse to joking, even under trying circumstances.—New York Times.

## Unification.

"Sectional lines are vanishing. Soon there will be no north, no south, no east, no west!"

"Yes; I suppose it's only a question of time until they get up a corporation big enough to own the whole country."—Puck.

## The Largest Dome.

The largest dome in the world is that of the Lutheran church at Warsaw. Its interior diameter is 200 feet. That of the British museum library is 130 feet.

## On the Move.

"They have two servants."

"Huh! That's nothing. We usually have two in our house—one going and one coming."—Philadelphia Press.

## NOTHING IS WASTED.

### VALUE OF CAST-OFF THINGS IN INDUSTRIAL WORLD.

The Means of Utilizing Articles that Formerly Went to Waste, Provided by Science, Result in Great Profit—Some Things Worked Over.

Little is wasted in the industrial world. Men of science are ever at work tearing by-products and waste material to pieces, to regroup the elements into new material which has a commercial or industrial value.

Old iron is worked over into new iron. Linen rags are reimpregnated and live as paper. Woolen rags are shredded and made into shoddy. Bones are made into bone black, to clarify sugar syrup. Old rubbers, bits of garden hose, exploded bicycle tires and any castoffs in which rubber is a part are made over into new rubber. Worn steel rails are rolled into lighter sections. Old rusty pipe is drawn down into bright new pipe. The tin cans which are gathered up in alleys and from garbage boxes are melted down and cast into window sash weights and counter weights for bridges.

Rags and old carpets are cut into strips and woven into handsome rugs. The list of old castoff things that are rescued from ash piles and garbage dumps to be born again can be extended for columns, and the list would never cease growing, for every day some new use for some wasted product is discovered.

There was a time when tons of blood, fresh from slaughtered cattle, flowed unheeded through the sewers under the stockyards in Chicago. To-day this blood is saved, put through several processes and comes out as a fertilizer or in the form of cakes, which are sent to sugar refineries to assist in clarifying the sweet liquor. Some of the handsome buttons worn on new dresses once ran as warm blood through the veins of fat steers.

Heat and hydraulic pressure are the agents which separate the water from the albumen in the red fluid, and prepare the dried blood for the pulverizing process which fits it for use as a fertilizer. After being boiled down, pressed, crushed and ground to a powder, the dried blood is mixed with potash and phosphoric acid and sent out as a complete fertilizer.

Shoddy is a useful product of waste material. It is never used alone, but in combination with new wools. The woolen rags from which shoddy is made are first thoroughly dusted by machinery before they are sorted. Any cotton which may be in the rags is got rid of by dipping the rags in a boiling mixture of sulphuric acid.

Long experience has demonstrated the exact proportion of the acid required to eat out the cotton fibers without destroying the wool. The effect of dipping the rags into the water and acid is to rot the cotton so that the woolen part of the fabric falls to pieces easily. After being dried the rags are run through a machine that removes every bit of dust, leaving the pure, clean wool. The woolen rags and cloth are dyed, and then run through a machine whose thousands of steel pins not only shred the rags, but split the threads so that the rags which enter the machine leave it in the form of wool fibers.

The wool is put through a carding machine, which thoroughly combs out the woolen particles, mixes them and turns them out in the form of long fluffy rolls, which are packed in bales ready to be shipped to the woolen mills, where the shoddy is mixed with new wool.

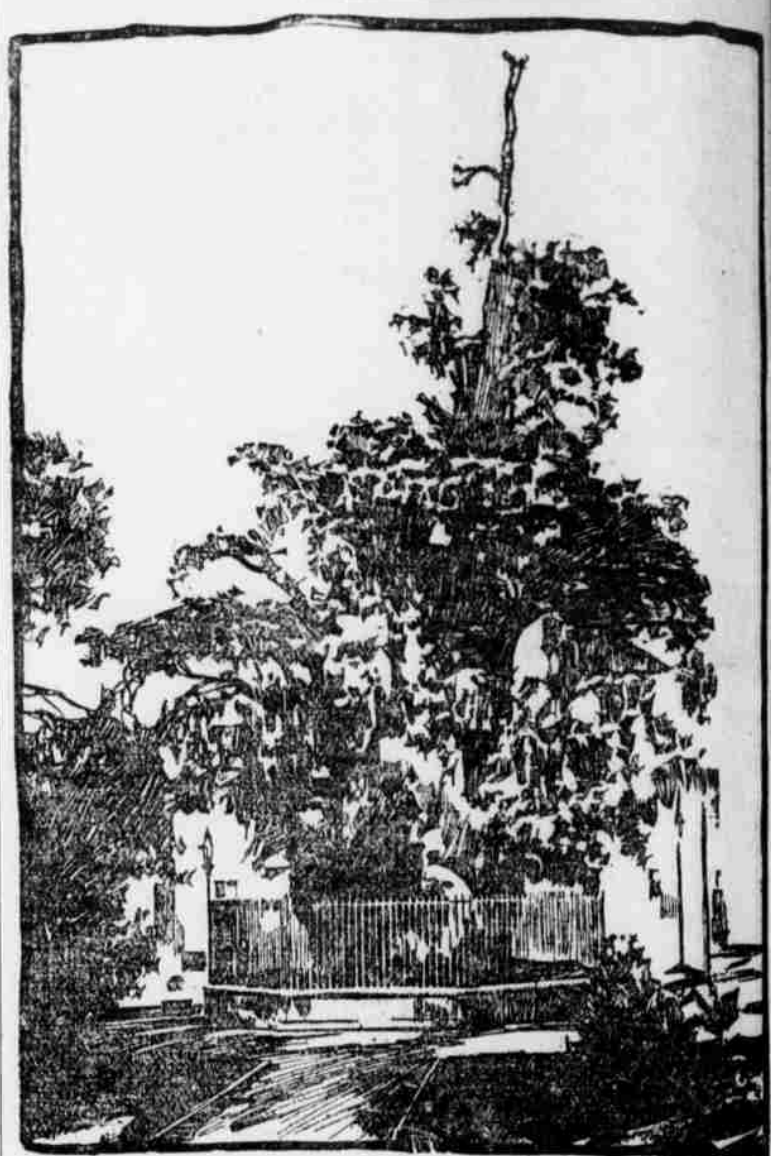
While woolen rags are sent to the shoddy mills, linen rags naturally start from the ragman's store room to the paper mill, whence they issue as fine linen paper.

The "old iron" which forms half the burden of the ragman's song is the basis of a business whose output is valued annually in millions of dollars. Every piece of old iron, wrought or cast, rusty or clean, can be utilized. The old cast iron is sent to foundries and puddling furnaces, the old wrought iron, bars, sheets and plates, is sent to the rolling mills. Cast iron sent to foundries is remelted with pig iron, and begins a new life of usefulness under new forms and shapes. The wrought iron goes to the scrap piles in rolling mill yards.

A profitable business has been found in the redrawing of old iron pipe and boiler tubes. Most of this waste material is thickly covered with rust when it arrives at the factory, and the rust is removed by the simple process of heating the old pipe to a cherry red and plunging it into water. The sudden contraction loosens the rust scales, and the pipe is sent to the heating furnace clean and bright. A good welding heat prepares the pipe for the redrawing process. This consists in pulling the white hot pipe through a die, which not only reduces its diameter but makes it solid. It is heated again and drawn through a smaller die, and the process is continued until the pipe is down to the required diameter. Then the new pipe is straightened and is ready for the market.

It was not so many years ago that the coal tar which is produced in the manufacture of gas was regarded as a waste product, and something of a nuisance at that. But the chemists and experimentalists got hold of the stuff, and their manipulation has made of it an exceedingly valuable by-product. This coal tar is a marvelous material. From it come beautiful dyes, sleep-producing powders, headache sufferers, pain killers, fever coolers, germ de-

## "TREE OF THE DISMAL NIGHT."



On June 30, 1520, Hernandez Cortes, being with his troops from the City of Mexico along the old Aztec causeway of Tlacopan, passing the spot known to this day as "The Loop of Alvarado." (Pedro Alvarado, one of Cortes' captains having there saved his life by his agility, crossing numerous waterways, being in his mad fight the priceless jewels and treasures of gold and silver confiscated from the natives, arrived about midnight at the village of Popotla, situated seven miles northwest of Mexico, where he hid at the foot of the giant cypress, the "Arbol de la Noche Triste" (tree of the dismal night), passing the hours in weeping. This tree is unquestionably the oldest living historical landmark on the American continent. Notwithstanding the march of civilization has changed materially all ancient conditions about the "Noche Triste," nearly 400 years having elapsed since that memorable night, we hear to-day the same tongue spoken, see the descendants of the same people passing to and fro in their picturesque garb or resting beneath the shade of its spreading branches, as did the great conqueror in those early days of conquest. Standing, grand, sublime, in its gaunt strength, the "Noche Triste" is an imposing historical object. Who can foretell the future races destined to avail themselves of its protecting arms, who write the history of their achievements on life's immortal scroll?

stroyers, and saccharin, the sweetest substance known.

The scores of chemicals obtained from coal tar are produced through a process of distillation which is almost perfection. For instance, when the tar, after the tar water—strong in ammonia—has been drained off, is heated in a tank that serves as a still to a moderate temperature, say 105 degrees, benzene is produced. When 100 more degrees of temperature have been added, other light oils appear, and then comes the carbolic oil from which carbolic acid is made. Creosote is given off at a little higher temperature, and then comes anthracene oil, the "raw material" of many products.

Some of the well known drugs which are secured from the several distillations of coal tar are antipyrine, phenacetin, sulphonal, antifebrin and acetanilid. Saccharin, which is almost 300 times sweeter than cane sugar, is a tar product.

Colors and dyes of every tint and hue are made from this one-time waste product. Aniline, one of the best known of the tar products, was discovered as far back as 1838, and when it was learned that from aniline beautiful colors could be made a new world of investigation was opened to chemists, and since then every color that can be produced by vegetable or animal matter has been made from coal tar.

## TOURING BY LABELS.

Enterprising Philadelphian Covers "Luggage" with Proper Tags.

In Philadelphia an enterprising individual finds a brisk trade in furnishing labels for travelers' trunks and valises, so that when a piece of baggage is finally turned out of his shop its owner has apparently indisputable documentary evidence that he has toured the world or such part of it as may have seemed fit. The convenience of this method of travel, it will be seen at a glance, fits in very well with the American idea of saving time, while as for money it of course saves large lumps. Thus you can go out and hide in the country somewhere at \$5 a week until the proper time, and then reach town in travel-stained clothes, coincident with the arrival of some steamship, with a trunk pasted all over with labels showing where you have been.

The trunks will be marked "Hotel" and the smaller pieces of baggage—by this time you will be calling it "luggage"—will be marked "Cabin." And as you gaze on these labels you will of course become reminiscent of the little Swiss hotel (see that label down in the corner) where you met the Prince So-and-So; the P. and O. steamer, where you encountered the British nobleman who turned out to be a distant connection; the hotel in Egypt—see any guide-book—where you met the swell American girl from Oshkosh, Wis., and so forth and so forth ad libitum, according to your imagination.

While cheap enough, however, this method of travel is not without some slight expense. The labels must be well paid for, because the labeler will tell you that all his wares are genuine and it is no easy thing to get such little pieces of printing from far-away hotels, railroad stations and steamboat offices, and you see at once that he is right.

Indeed, if you have any of the sophistication that travel ought to give you, you will suspect that many of the labels offered you are made on the spot and you have an uncomfortable feeling in being pasted for an entire route that some of the hotels named on the labels do not exist or that their locations may have got mixed in a way to confound you some time when you may be at the very best point in your reminiscences. This suspicion is rather increased, says the Philadelphia Times, by the curious fact that a tour of Cuba cost more than a less popular tour of the same extent in Europe, and you wonder if it is not because the Cuban labels are too well-known to be bogus.

## MEAT AND VEGETABLES.

Men Should Eat Greater Variety of Food.

Let it not be assumed that the shortness of the meat supply and the high price of steak is an unmitigated evil. On the contrary, it is a probable blessing. If meat could be raised to a price that would make it prohibitory it might still be of good result, because it would teach those who depend entirely upon it to widen their dietary and learn to enjoy many good things of which they are now ignorant.

To many, especially in the cities, there are only three foods—meat, potatoes and bread. The weary monotony of this program, the unsatisfied longings for a widening of it, affect the appetite and surely affect spirits and temper. The laborer goes to his work filled with meat, potatoes and bread. At noon he finds cold meat and bread in his dinner pail and at night he is confronted by meat and potatoes, sometimes separate, sometimes combined into a greasy stew, sometimes chopped into hash. This kind of thing fills him, but in a finer sense it can hardly be said to feed him. Physicians have discovered that a limited and unchanging diet lowers vitality and health.

At such a time as this, there is a chance to find what things the world contains which are at least as digestible as beef. There is a wide range of sea food, farinaceous products can be served in a hundred forms, as well as bread, and as to vegetables, how seldom does the housekeeper give a trial to them.

A hearty and sustaining meal can be made from a vegetable soup, followed by potatoes, onions, turnips, parsnips, egg plant, with two or three kinds of bread; then by asparagus, spinach and dandelion, afterward by a fresh and cooling salad, as of lettuce, cucumbers or tomatoes; then by cheese, pudding, fruit and coffee.

Meat eating is largely a habit, says the Brooklyn Eagle, and to some persons it is a habit acquired with difficulty. If to vegetables, fruit and constructions made of flour and sugar are added eggs, butter, cheese and milk, a range of diet becomes possible that makes one independent of animal food. It can do no harm to those who consider themselves the gainers in health, as well as in pocket.

Let a girl rave about romantic poetry, if she likes; in a few years she will care for none but that with a nursery jingle, suitable to say for a "special" in school.