A ROUGH DIAMOND.

I.

Oh, Miss Elsie, Miss Elsie, the bank has been robbed! Twenty thousand pounds gone, missie! and poor master away! Oh, dear! oh, dear!'

Fully an hour ago had the above words been thrust on pretty little Elsie Maitland's bewildered hearing. She still sat in the exact spot where the bearer of the awful news had left her, too stunned and shocked yet to properly realize all that the terrible tidings might mean.

Twenty thousand pounds gone! And the bank by consequence that embarrassed condition before! Worst of all, the banker himself—Elsie's uncle—was away! Elsie Maitland was a brave little woman, but somehow this last dreadful thing had well-nigh robbed her of her bravery.

A step behind her, and a low voice spoke her name. She knew it at once; it was her good-for-nothing brother's. Why had he come here now, bringing fresh trouble? For the first time in her life Elsie felt angry with him.

"Why are you here again, Harold?" she cried, when he was standing there in front of her. "When I gave you that last money you promised to stay away altogether, and try and get something to do. Yet here you are once more, and this time I cannot help you. Why, why do you come? Uncle John would be furious at finding you here."

"But he is away, Elsie," the young man answered breathlessly. "Girlie, you must help me, just this once. I promise solemnly never to worry you again!"

"You have promised solemnly before, Harold," his sister said bitterly. "I cannot help you, I say. We are all ruined. The bank has been robbed."

The startled look on his white face caused her to cease speaking.

"Is it true, Elsie?" he asked hoarsely. "Has the bank really been robbed?"

She told him what she knew, he listening impatiently.

"I must have money, girlie!" he burst out. "I must have it! I must get away from here tonight, and I don't possess a single farthing! Quick dear. Uncle left you some for housekeeping. That will have to do."

"I don't possess a single farthing either," she persisted. "What is the matter, Harold? Why is it so terribly necessary for you to leave Blackmore tonight?"

Their eyes met—hers clear, straightforward, honest; his weak and nervous.

"Uncle will be coming back to see about the bank, Elsie," he muttered queerly. "He must not find me here."

No, it would only add to the bitterness of his return. But what could she do?

"I have it!" the desperate brother suddenly exclaimed. "Elsie, this news about the bank robbery is still exclusive. The editor of the Blackmore Times would give you any sum for it. He is enterprising, and always ready for something startling at first hand. This is our only chance, dear."

But Elsie would not see it in that light for a long, long time. It was not until her brother had fully enlarged on the grim necessity of the case, not until he had forced her to plainly understand the consequences if he did not have money at once, that she finally consented to go to the editor of the Blackmore Times.

Harold Maitland had a smart, cunning tongue; on this occasion he had indeed used it well. As he prophesied, the editor literally grabbed at the "copy," especially after he had fairly convinced himself that his would be the first paper to publish the startling news on the morrow. Elsie went wearily home with the much-needed money in her pocket. Harold was awaiting in bidding for her, and pounced down eagerly on the gold.

II.

An hour after his departure their uncle's manager came to the house and asked to see Elsie. When he was admitted into her presence he noticed with a sharp pang how wan and desolate her little face had grown.

Poor child! Such things as these were hard for her to have to bear. How he wished that he could save her all care and annoyance in the future! For with the whole of his stout, loyal heart he loved her.

He showed her a telegram which he had received from her uncle.

"Returning at once," it said. "Keep news of robbery out of the papers at any price till I see you."

Elsie read the words, or, rather, they chased each other before her dizzy, aching eyes. She suddenly tottered forward and fell in a dead faint.

Next morning huge posters appeared from the offices of the Blackmore Times, making public the robbery. Newsboys shouted it frantically from one street to another. Soon a big crowd had gathered outside the bank, clamoring for the doors to be opened.

They wanted their money back, their hard-won earnings, and they meant to get it. That exclusive news sold by Elsie Maitland on the previous evening to the editor of the Blackmore Times had caused an appalling run on her uncle's bank.

The doors were opened at last; the crowd surged in, presenting checks to the full amount they had deposited in the bank. They looked astonished when the gold came out in response to their direction. Clearly they had expected to be turned away penniless. They thanked their stars for being the first. The bank could not go on paying out for long, of that they felt sure.

At noon Elsie and her uncle drove up to the front entrance in an open carriage. He had insisted on her accompanying him, despite the fact that she looked wretchedly pale and ill.

All the way along they had seen those hideous posters announcing the robbery.

"How did they get the news?" John Rivers kept repeating. "Elsie, child, how did they get the news? It is a mystery to me. If only it could have been kept from them another twenty-four hours I could have weathered the storm."

Poor Elsie's heart ached.

"I have done it!" she cried. "The fault is mine—mine! Oh, Harold, if only I could have foreseen all this! If only I could have foreseen it all!"

III.

As yet Elsie had not told her uncle who supplied the news to the paper. She prayed fervently that she might be able to keep the knowledge to herself forever, safely hidden from the fond old man who believed in her. Fate would decide.

For hours she sat in a little room over the bank, listening to the persistent clamorings below for gold.

How much longer could it go on?

"Not much longer!" John Rivers said ejectedly to his suffering niece. "Not much longer, Elsie, my girl. They must have paid it nearly all out by now. Soon they will have to close the doors. Don't cry, child. It is the will of Providence, I suppose, but it's hard to get such a blow as this at my time of life!"

Presently there were sounds of cheering in the street. A well-known millionaire had driven up to the bank.

"My God!" muttered the old banker. "This is the last straw! Reginald Fairfax has turned against me with the rest; when he has withdrawn his money there won't be a penny left!"

"Go and see him, uncle," Elsie pleaded. "He is so rich he might be persuaded to leave it."

"No, child. I could not speak to him or any one else today."

Then I will, uncle. Oh, do go and send him here to me! I must see him! Reginald will save us!"

John Rivers went blindly out, and Elsie waited for Reginald Fairfax to come to her. Twice this self-made man has asked her to marry him; twice she had refused. He was rich, but he was also coarse. Life with him would be a nightmare, she had always told herself. She did not love him.

But now—

He was standing there in front of her, loudly dressed, and looking more commonplace and vulgar than ever. How could she appeal to this boorish parvenu? She must, though; she had worked the mischief, and she must right it if possible.

At the end of another five minutes she was telling him everything—all about her brother and her selling the news of the robbery to the editor. He listened in silence. She humbled herself to the dust before him, and begged him not to withdraw his money from the bank.

He smiled queerly.

"You twice asked me to be your wife," she wound up feverishly, "and I refused you. Would you still marry me, Mr. Fairfax? Oh, do answer! If I said 'yes,' would you still marry me?"

The smile broadened.

"Am I to understand that you are proposing to me, Miss Maitland?" he asked.

"Don't seek to humble me any more; don't, don't!" she cried. "I have fallen far enough!"

"Yes," he said; "it must indeed be a terrible fall for the proud Miss Maitland to offer herself to me! You offer to become my wife if I will only leave my money in your uncle's bank.

I MUST HAVE MONEY.

Considering that I love you—and that you love someone else—it is rather hard on me, isn't it?"

"Oh, don't, don't! If you only knew how I loathe myself for having said all this to you. You are quite right to refuse me. How dare I ask you—or any man—to take me under such conditions? You are quite right to refuse me."

"I don't know," he answered slowly. "If you did not love another man already it might have been different. But as it is—yes, I certainly won't marry you, Miss Maitland; you have humbled yourself to me unnecessarily. You cannot know me very well when you imagine that I had come to withdraw my support from your uncle at such a time as this. Instead, I am merely come to place the further sum of £50,000 to my account." The public knows it already, and the paying into the bank of such a large sum has restored confidence."

Ere she had time to speak he was gone.

But the bank was saved! The bank was saved! A man she had always despised in her heart had come forward and saved it. Why—why had she never been able before to see the fine nature which lurked beneath a somewhat boorish exterior.

The excitebent of that day was followed by a long illness for her. When she returned to life once more it was to find her uncle in better spirits than she could ever remember him.

"All the doing of Reginald Fairfax, Elsie, my girl!" the old banker said, gleefully. "He stuck to me right through, child, when everyone else failed me, and his example saved the bank.

He had further persuaded old John Rivers to make a partner of his long-trusted manager. He was therefore in a position at last to ask Elsie's hand in marriage. When he asked her she answered "Yes."

Some months after their marriage Elsie received another visit from her brother Harold. He was altogether a different person. He was going to America, and had come to make a confession to her.

He had sold his knowledge of their uncle and the bank to a certan gang of thieves for a large sum of money. But he had never known a happy minute since, and he had not touched a farthing of the ill-gotten cash. He was going to America now, to start life in earnest, and when his sister asked him where he had found the necessary funds he told her that the donor was Reginald Fairfax.

Liked to Be Fooled.

Said Mrs. Fondmother to her son, who is unduly partial to the softer sex: "Don't you put any reliance on what the girls tell you. They are awful liars and will fool you every time." "Yes, but how nice they do it," replied the enamored youth, with a beatific smile.

NATURE DOESN'T LIKE GENIUS.

She Always Provides for the Extinction of His Race.

Through all time men of genius have scoffed at and have ridiculed the attempts of purse-proud old "richesse" to create superior orders of manhood, says the Humanitarian. Nor is this a matter for wonder; they were and are ridiculous. Yet these attempts are repeated every hour. Considering them one would suppose that wealth, titles, dignities are talismans which insure virtue and honor and personal worth and beauty in those to whom they descend. Talismans are ridiculous and so are titles. Nobility is of blood and not of garters, royal sponsors and christenrobes. Pedigrees, portraits and family history, when truthful, tell us a great deal about nobility of a race. Titles, quarterings and patents are worthless; and the production of a great genius, in general, is the sign as the production of a great profligate. Races thus produce geniuses should be avoided; the best is the second best—the normal. Genius, as some one (Victor Hugo, I think) has finely said, is a promontory stretching out into the ocean of the infinite. Look for the descendants of Shakespeare, Bacon, Macaulay, Wellington, Nelson, Gibbon, Swift, Voltaire, Carlyle, Bonaparte, Goldsmith, Spenser, Milton, Cromwell, Disraeli—to take a few names at random—and you will find that they are not. For the genius is always a transgressor of the normal—a "sport." He is never symmetrical. Such a one nature likes not and she makes provision for the extinction of the race.

TREES IN NEW ZEALAND.

The Kauri, a Pine, Grows to an Enormous Height.

From the Chautauquan: The kauri is the monarch of the New Zealand forest, an indigenous pine, growing to enormous height, frequently eighty feet, before it sends out a bough, while its average diameter is from eight to nine feet. It is said to be 800 years in reaching maturity. There is no underbrush in a kauri forest, the prince of trees permitting no rival within its domain. The totara is another species of pine, which, however, has none of the characteristics of the coniferae of other countries, either in habit or in appearance. The most singular of all is the rata, a peculiar tree with somewhat the nature of a parasite. If it springs up near a rimu pine it winds about it like a huge vine, its tightening coils gradually crushing the life out of the unfortunate pine. When it reaches the top it sends out branches and stands a hollow shell, its coils knit closely together, by a dense network of fibres, which appear in the last stage of its growth. It has a like affinity for its own species and a second rata springing up beside one of earlier growth will absorb and destroy it as it destroys the rimu. If, however, neither rimu nor rata is within reach, it grows up a respectable and well-behaved tree, attaining a height of from fifty to sixty feet and is used for masts in shipbuilding.

Black Rain in Ireland.

A few weeks ago, in the Mullingar district of Ireland, there fell what seemed like a shower of black rain—so black, indeed, that it obscured the sky and sent fowls to roost. The fall extended over an area of some miles. While the rain continued lights were obliged to be lighted, birds roosted, and, as is often the case, many people imagined that the last day had come. According to a meteorologist, the cause of this singular shower was only soot. Although it fell in a district far removed from the large manufacturing towns, it was explained that during the previous week there had been strong winds blowing from the northeast, and these winds, collecting the soot from the manufacturing towns of the north, had carried it at a high altitude in a southwesterly direction. When the soot-laden air met a moist wind from the southwest the latter parted with its moisture and the former with its soot—hence the shower of black rain.

AN OLD-TIMER.

This well-preserved old house was built in 1793, as the stone in the gable end testifies. It occupies the ground adjoining that on which stood the house always known as "The Old Johnson House," which was built in 1698. It was a plain, one-story, modest looking stone dwelling, with curb roof enclosing the garret. During the battle of Germantown, two cannons were placed directly in front of it, in order

THE OLD JOHNSON HOUSE.

to silence the musketry of the British, who were stationed at Chew's house immediately opposite.

Suasion.

Now was come the age of the moral suasion, when parental kindness was rattling around trying to fill the place of the rod and trunk strap. "Give me 10 cents, mamma," persisted the boy with flaxen curls, "and I'll take the medicine!" "No, Clifford," exclaimed the sweet woman, tears springing to her eyes, "papa's salary is cut and five cents a week we can afford!" Inwardly, however, she thinks what a terrible thing is poverty.—Detroit Journal.

Beetle That Holds On.

The rhinoceros beetle has a tenacious and almost fatal grasp as the most ferocious bulldog. Its head may be two-thirds severed from its body, and it will not loosen its hold. It has real horns and not mandibles, like many of its family.

Some Men

Some men avoid a disagreeable task by persuading themselves that its accomplishment is an impossibility.

IS TAKEN FROM LIFE

HIRAM WILSON SAWYER HERO OF A NOVEL.

Was the Famous Wisconsin Judge the Man?—Question as to Whether He Did Not Figure in a Story—Author Takes Some Liberty.

(Milwaukee Letter.)

N observing Milwaukean drew attention the other day to the remarkable resemblance which Judge Sawyer of Hartford, late democratic candidate for governor of Wisconsin, bears to the principal character in a current story. The description given there of Judge Tracy Dunn fits Judge Sawyer to a T, and the resemblance is so remarkable that many people have assumed that the author had Judge Sawyer in mind when drawing the character. The Bowerville of the book might well be Hartford, Judge Sawyer's home, and the environment in every respect is remarkably alike. The strongly anticorporation tendency as evidenced in Judge Sawyer's record is a marked characteristic of Judge Dunn, though the resemblance stops with Judge Dunn's elevation to the federal bench. Although it is not known that Judge Sawyer has any particular penchant for butterflies, like Judge Dunn, he is remarkably fond of fishing and very skillful with the rod, and can boast of the capture of many fine bass and muskellunge.

This is the description which the author gives of Judge Tracy Dunn, and in which Judge Hiram W. Sawyer can so plainly be seen:

"Judge Dunn was slightly below the average man of the West in height—which by no means implies that he was small of stature, for what is lacked in height he made up in breadth of shoulders and general massiveness of frame, from his large, well-rounded head to his thick-soled boots, and these were built on no common last. His forehead was really higher than it looked because his thick, iron-gray hair had early overstepped the line of the border plantations, as generally laid out, and by nature had encroached downward, until it left a somewhat narrow space between itself and his eyebrows, which were shaggy and inclined to curl outward. His eyes were a deep blue of peculiar shade, without a suggestion of gray, and his long nose was emphasized by a hump in the center of the ridge, which lent to his countenance an expression of sternness, strongly impressive at first glance. The lower part of his face was covered with a beard that matched his hair in color and concealed his chin, but a picture of him taken in 1862 showed a young man with a well-rounded chin, square-cut jaws and a handsome mouth.

"Judge Dunn had presided over this circuit for two years and there was no man more popular than he in Stallworth county. A remark made by a yankee farmer some years before had become historical and was generally accepted as a fair estimate of the man. 'Goll durn him!' exclaimed this farmer, after having gotten the worst of an argument, 'the jedge is as set in his ways as a mule, but durn if his ways ain't 'bout kerrect.'"

Again, in the book, when the judge is asked the question, "Are you really so much opposed to all corporations as people say you are?" he replies:

"The question was a frank one and shall have a frank answer. I am not down on corporations in the abstract, but I confess that in my opinion there is a decided tendency on their part to assume powers beyond what the framers of the constitution and the early lawmakers intended and to make use of the wealth which they control in ways which will not bear the scrutiny of honest men. They take every point which the law allows them and add a few more obtained by the use of money—generally, I must confess, in an indirect way, though none the less unworthy because they do not violate any law on the statute books. The effect is the same on the poor litigant who may be seeking justice with a corporation and all its forces arrayed against him.

"In so far as I have always tried in my court to preserve an equilibrium, and to curtail as much as possible the use of what I deem improper advantages on the part of corporations, I have been 'down on corporations,' but no further." And he added: "The prejudice that has grown up in the minds of the people is the natural child of the corporation, begotten by the policy of greed and oppression practiced by rich corporations. What is more, this child grows stronger every day—christen it what you will, virtuous indignation or prejudice."

"Well," resumed Gardwell, "we would only be too willing to strangle the child, and henceforth adjust all differences according to the strict letter of the law."

"The law is a broad term," replied the judge. "Law is oftentimes not equity and that which is not equity the people will never accept as the law, even though it is crammed down their throats by the supreme court."

GRANT'S BROTHER.

This is a picture of Simpson Grant, a brother of the great general. This brother has never been heard of in

SIMPSON GRANT.

connection with Gen. Grant's fame for the reason that he died before the general became famous. Simpson Grant was the youngest of the Grant children. He was afflicted with consumption and, to benefit his health, took a wagon trip through the northwestern prairies. He died in an obscure Iowa town just before the war, and was buried there among strangers. It was many weeks before the Grant family knew of his fate or the place of his burial. A modest stone marks his grave and his name was engraved on the Grant tombstone in Spring Grove cemetery, Cincinnati.

JUDGE HIRAM WILSON SAWYER.

Irish Bulls.

An Irish correspondent of the London Daily Telegraph says that a countryman of his was badly wounded in battle, and, as he lay on the ground a wounded comrade near him kept up a continual howl from pain. "What the devil are ye shoutin' like that for," said Pat; do ye think that nobody's kilt but yerself?" A sergeant in a regiment of light horse was both very tall and very corpulent and often joked with one of his men, an Irishman, as to the proneness of his countrymen to make bulls in the course of ordinary conversation. "Be the sowl," said the Irishman, "Ireland never made such a bull as England did when she made a light horseman of you."

Battle of Storks.

An astonishing story that recalls to mind the classic tale of the battle of the cranes and pygmies comes from Macedonia, where it is said that a pitched battle between some thousands of eagles and storks, at a village with a name that defies pronunciation or orthography, took place, with the result that the storks were defeated with great slaughter and large numbers of their slain were left on the field.

The Rock of Refuge.

In the Sandwich islands there is a spot called the Rock of Refuge. If the criminal reaches this rock before capture he is safe, so long as he remains there. Usually his family supply him with food until he is able to make his escape, but he is never allowed to return to his own tribe.

Foundation of a Theory.

Watts—"I see that a German scientist asserts that the memory is stronger in summer than in winter." Potts—"I guess he wrote that after hearing some old fellow talking about the hot summers of forty years ago."—Indianapolis Journal.

A woman sometimes prefers a man's presents to his company.

FARM AND GARDEN.

MATTERS OF INTEREST TO AGRICULTURISTS.

Some Up-to-Date Hints About Cultivation of the Soil and Thing Thereof—Horticulture, Viticulture and Floriculture.

Orchards in Hard Places.

In an address before the Wisconsin State Horticultural Society, Geo. J. Kellogg said in part:

In recommending the best plan most likely to succeed on low situations and poor orchard soil, I would go back to the foundation and plant four seeds of the most hardy apple or crab known, such as Duchess and Hibernal or Virginia crab, plant these in a well prepared spot where the future orchard tree is to stand, protect by a bit of fence board on the southwest side, and so staked and mulched that a good growth may be secured; the first fall remove all but two of the most vigorous seedlings, bank up for winter and if the size is sufficient to carry a clon, the following spring graft two inches below the crown with Duchess, Hibernal, Charlamoff and Virginia crab for those kinds less hardy. If the seedlings are too small at one year then continue the growth another season and graft at two years.

The advantage of grafting the seedling without transplanting is to get the benefit of the whole root and in no other way can the full benefit be obtained; grafting two inches below ground will insure the rooting of the scion; using Virginia crab as a stock upon which at two to three feet to graft, or bud in the limbs, varieties which are less hardy. Such varieties as Duchess, Hibernal, Glass Green and a few others may be grafted at the ground. The grafts should be shaded by a bit of board till large enough to be protected by the lath shield. Graft two seedlings, then remove one later on.

Second plan. Set two root grafts of short roots and long scions where the future orchard tree is to stand; protect the same as before; take up the weakest of both grafts grow; always prune the growing tree when the bud can be removed with the thumb; have one central trunk and side branches at right angles six to twelve inches apart; stimulate the tree to early growth but do not cultivate after July, or cause more than a moderate growth of wood each year. After trees come to bearing do not let them overbear, or starve to death; a tree should be fed in proportion to its fruitage. Most old orchards are starved to death. The best fertilizer for fruit is hard wood ashes sowed broadcast at the rate of 100 bushels per acre annually. I would recommend for hard places only Duchess, Hibernal, Glass Green, Charlamoff, McMahon, Wealthy, Repka Malenka, Longfield and Patten's Greening of apples, and all but the first four top worked on Virginia crab, Whitney, Virginia, Martha and Sweet Russet for crabs. Apple seed must be planted fresh from the apple in the fall, or if dry, soaked till it is plump, then frozen, mixed with sand and planted in spring.

The San Jose Scale.

We fear our readers may become tired of seeing this heading in the various farm papers, but we assure them there is reason for a full discussion of this pest. We know that some men that have orchard stock to sell are trying to belittle the danger, but the danger exists in spite of their efforts to lull the country into a fancied security. The state entomologist of California says that without doubt the San Jose scale is the greatest pest that has ever menaced the orchards of this country. In California it has become so prevalent that it is no longer considered possible to eradicate it. The only thing left to do is to fight it in every orchard and try to grow fruit in spite of it. Spraying has only the effect of keeping down the generations of young ones when they make their appearance on the orchard trees in large numbers. But in the forests where the scale has got a foothold no spraying that will be effective can be done. This should stimulate the horticulturists east of the Rocky mountains in every way that they can to prevent the spread of the scale, knowing as we do that once the pest is among our wild trees it will be impossible of extinction. Every state should take energetic measures to protect its borders. We raise troops and spend millions to keep out foreign invaders when they come in the form of men. Why not spend money as freely when it is necessary to repel an insect invasion?

The Grain Weevil.

A bulletin sent out from the Indiana experiment station says: Numerous inquiries have recently come to the experiment station concerning a small insect which is described as doing great damage to the wheat in granaries. With one exception no specimens have accompanied the letters, but from the descriptions given it is very evident that the insect is one of the grain weevils which are commonly infest wheat stored in bins.

One of the most common of these little beetles is Calandria granaria, a small, dark reddish snout beetle, which deposits its eggs upon the grain. These eggs soon hatch into small, footless larvae, that eat out the substance of the kernels, and become full-grown in a few weeks. They then change to pupae and soon after again transform to adult beetles. There are several broods each season, so that may be found at almost any time during the summer and autumn. While there are several species of these grain weevils, the same remedy will do for all. As these insects penetrate all through the entire bulk of grain, it is necessary to apply some substance that is equally penetrating in its nature. This is found in carbon bisulphide, which may be had at any drug store. The vapor of this substance is very poisonous and will destroy all insect life with which it comes in contact. This material is also very explosive when brought in contact with fire. Keeping these two points in mind it may be handled with perfect safety. In applying the material it is well to keep in mind the fact that it is very volatile and quickly passes into vapor, which diffuses itself throughout the entire mass of grain, and as the vapor is heavier than air it will have a tendency to settle. But in order to insure

the destruction of all insect life it is well down toward the middle of the mass of grain by means of a gaspipe with a screen over the lower end, which will prevent the wheat filling the pipe. And through which the poison may be poured. The pipe is then withdrawn. One pound of the bisulphide is sufficient for fifty bushels of grain. One application will be sufficient unless the grain is to be kept over winter, when a second application may be necessary. The material does no harm to the grain in any way, as the poisonous fumes all pass away as soon as brought in contact with the air outside.—James Troop, Horticulturist.

The German Farmer.

John E. Kehl, the United States consul at Stettin, Germany, says that the American farmer enjoys great advantages over the German farmer in the way of modern labor-saving machinery, larger tracts of land, etc. As an offset to this, the German farms in a more intensive way, and generally produces larger crops. The latter however, would not enable them to fight against depression if they did not receive state aid and had not quite a perfect system of co-operation. At many of the old universities, such as Berlin, Gottengen, Leipsic, Halle, Munich, etc., there have been founded agricultural colleges, and in all other colleges there are chairs of agriculture, with professors to lecture on the subject, thus disseminating a valuable amount of practical scientific knowledge.

"Co-operation," say the Germans, "is the farmer's stronghold and bulwark." There are co-operative credit banks, co-operative dairies, co-operative steam plows, and there is co-operation in drainage and irrigation. As a rule the farms are devoid of small underbrush, stumps, stones, creeping vines, etc. Timber is equally well cared for. In draining and irrigating the farmers are experts. At present a perplexing question is how to stop or check the exodus of labor to the cities, where wages are higher. The salaries paid farm laborers vary, but average 35 cents per day (50 cents during harvest), with the use of a small house, patch of ground (about one-half acre), and the privilege of using the implements for cultivation of same. Single men who board with the family are paid considerably less. The German government is endeavoring, both by legislation and education, to enable the farmer to compete with his rivals.

Stock on Western Ranges.

William Penn Anderson of the railway bureau of live stock statistics, Union Stock Yards, Chicago, has just completed a canvass of the range cattle of the country for the Associated Press. He says along from southern Texas to northern Montana the grass on the ranges, with the exception of a few drought spots in the fall, was excellent. An abundant hay crop was harvested, and a greater number of cattle in proportion will be sustained throughout the coming winter than ever before. He also says there is a wonderful increase in the calf crop, as shown by the records of "round-up" foremen on the open ranges. The movement of cattle and sheep to feed lots and other eastern markets during October is almost without parallel. There is a veritable stockcar famine in the Rockies and intermountain states. There are thousands of cattle being held in close herd awaiting shipment.

Varieties of Wheat.

The Pennsylvania station has been testing wheats for more than ten years. Of those that were tested for eight years it says:

For the varieties tested eight years the average yield of the first five is as follows: Reliable, 32.70; Fulcaster, 32.10; Ontario Wonder, 31.19; Wyandotte Red, 30.66, and Dietz Longberry Red, 30.64. For those tested four years, the yield of the first three is as follow: Royal Australian, 32.47; Jones' Square Head, 31.27 and The Pool, 31.25. It will be noted that the order of yield for 1897 varies considerably from that of all the years in which the varieties were tested, proving that the results obtained from a single year's trial is not an accurate test of the value of a variety but that it should be continued through at least two or three years in order that the test be of any material value.

Drowning Codling Moths.

Wormy apples may be prevented by placing barrels half filled with water in the orchard just as the trees are about to open their blossoms. The moths, which fly between sunset and 10 p. m., can be captured easily by suspending over the water in the barrel a lighted lantern. They are then attracted by the light and eventually find themselves in the water; 10 lanterns to 40 trees is ample. I tried this plan and succeeded beyond question. Last season I omitted to do it, and got caught with the worm again. This season I do not propose to be caught, so am getting ready my barrels and lanterns. My contention is that the moth is captured before she has deposited her eggs in the expanded blooms.—American Gardening.

Farming Area of Montana.

Montana is the third largest state in the Union, covering an area 550 miles in width from east to west, and 900 miles in length from north to south. Its boundaries include 146,080 square miles, or 92,998,400 acres. The lands are divided among the different industries about as follows: Farm lands, 30,000,000 acres; grazing lands or natural pasturage, 35,000,000 acres, and native forests, 14,000,000 acres. The principal cultivated valleys and land capable of irrigation and cultivation lie below the 4,000 feet altitude mark, and are suited to all classes of gardening, fruit growing and farming.

Farm Buildings Too Far Apart.

We see quite frequently houses and barns located quite a distance apart, so far indeed that it requires several minutes' time to go from one to the other. If house and barn are only 100 feet too far apart, and we make but three trips back and forth each day, in a week's time we have traveled about an extra mile and in twenty years will have gone a thousand miles out of our way, or farther than necessary. We would think it a hard task indeed if compelled to start out once even in twenty years and walk a thousand miles without any compensation therefor.—Ex.