The Last Shot

BY

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SYNOPSIS.

At their home on the frontier between the Browns and Grays Marta Galland and her mother, entertaining Colonel Westerling of the Grays, see Captain Lanstron, staff intelligence officer of the Browns, injured by a fall in his aeroplane. Ten years later. Westerling, nominal vice but real chief of staff, reinforces South La Tir, meditates on war, and speculates on the comparative ages of himself and Marta, who is visiting in the Gray capital. Westerling calls on Marta. She tells him of her teaching children the follies of war and martial patriotism, begs him to prevent war while he is chief of staff, and predicts that if he makes war against the Browns he will not win. On the march with the 53d of the Browns Private Stransky, anarchist, decries war and played-out patriotism and is placed under arrest. Colonel Lanstron overhearing, begs him off. Lanstron calls on Marta at her home. He talks with Feller, the gardner. Marta tells Lanstron that she believes Feller to be a spy. Lanstron confesses it is true.

CHAPTER VI—Continued.

"Oh, it's you, Lanny—Colonel Lanstron!" he exclaimed thickly. "I saw that some one had come in here and naturally I was alarmed, as nobody but myself ever enters. And Miss Galland!" He removed his hat deferentially and bowed; his stoop returned and the lines of his face drooped. "I was so stupid; it did not occur to me that you might be showing the tower to Colonel Lanstron."

"We are sorry to have given you a fright!" said Marta very gently.

"Eh? Eh!" queried Feller, again deaf. "Fright? Oh, no, no fright. It might have been some boys from the town marauding."

He was about to withdraw, in keeping with his circumspect adherence to his part, which he played with a sincerity that half-convinced even himself at times that he was really deaf, when the fire flickered back suddenly to his eyes and he glanced from Lanstron to the stairway in desperate inquiry.

"Wait, Feller! Three of us share the secret now. These are Miss Galland's premises. I thought best that she should know everything," said Lanstron.

"Everything!" exclaimed Feller. "Everything—" the word caught in his throat. "You mean my story, too?" He was neither young nor old now. "She knows who I am?" he asked.

"His story!" exclaimed Marta, with a puzzled look to Lanstron before she turned to Feller with a look of warm sympathy. "Why, there is no story! You came with excellent recommendations. You are our very efficient gardener. That is all we need to know. Isn't that the way you wish it, Mr. Feller?"

"Yes, just that!" he said softly, raising his eyes to her. "Thank you, Miss Galland!"

He was going after another "Thank you!" and a bow; going with the slow step and stoop of his part, when Lanstron, with a masculine roughness of impulse which may be sublime gentleness, swung him around and seized his hands in a firm caress.

"Forgive me, Gustave!" he begged. "Forgive the most brutal of all injuries—that which wounds a friend's sensibilities."

"Why, there is nothing I could ever have to forgive you, Lanny," he said, returning Lanstron's pressure while for an instant his quickening muscles gave him a soldierly erectness. Then his attitude changed to one of doubt and inquiry. "And you found out that I was not deaf when you had that fall on the terrace?" he asked, turning to Marta. "That is how you happened to get the whole story? Tell me, honestly!"

"Yes."

"You saw so much more of me than the others, Miss Galland," he said with a charming bow, "and you are so quick to observe. I am sorry"—he paused with head down for an instant—"very sorry to have deceived you."

"But you are still a deaf gardener to me," said Marta, finding consolation in pleasing him.

"Eh? Eh?" He put his hand to his ear as he resumed his stoop. "Yes, yes," he added, as a deaf man will when understanding of a remark which he failed at first to catch comes to him in an echo. "Yes, the gardener has no past," he declared in the gentle old gardener's voice, "when all the flowers die every year and he thinks only of next year's blossoms—of the future!"

Now the air of the room seemed to be stifling him, that of the roofless world of the garden calling him. The bent figure disappeared around a turn in the path and they listened without moving until the sound of his slow, dragging footfalls had died away.

"When he is serving those of his own social station I can see how it would be easier for him not to have me know," said Marta. "Sensitive, proud and intense—" and a look of horror appeared in her eyes. "As he came across the room his face was transformed. I imagine it was like that of a man giving no quarter in a bayonet charge!"

Feller had won the day for himself where a friend's pleas might have failed. This was as it should be, Lanstron thought.

"The right view—the view that you were bound to take!" he said.

"And yet, I don't know your plans for him, Lanny. There is another thing to consider," she replied, with an abrupt change of tone. "But first let us leave Feller's quarters. We are intruders here.'

"A man playing deaf; a secret telephone installed on our premises without our consent—this is all I know so far," said Marta, seated opposite Lanstron at one end of the circular seat in the arbor of Mercury.

"Of course, with our 3,000,000 against their 5,000,000, the Grays will take the offensive," he said. "For us, the defensive. La Tir is in an angle. It does not belong in the permanent tactical line of our defenses. Nevertheless, there will be hard fighting here. The Browns will fall back step by step, and we mean, with relatively small cost to ourselves, to make the Grays pay a heavy price for each step—just as heavy as we can."

"You need not use euphonious terms," she said without lifting her lashes or any movement except a quick, nervous gesture of her free hand. "What you mean is that you will kill as many as possible of the Grays, isn't is? And if you could kill five for every man you lost, that would be splendid, wouldn't it?"

"I don't think of it as splendid. There is nothing splendid about war," he objected; "not to me, Marta."

"And after you have made them pay five to one or ten to one in human lives for the tangent, what then? Go on! I want to look at war face to face, free of the will-o'-the-wisp glamour that draws on soldiers."

"We fall back to our first line of dedense, fighting all the time. The Grays occupy La Tir, which will be out of the reach of our guns. Your house will no longer be in danger, and we happen to know that Westerling means to make it his headquarters."

"Our house Westerling's headquarters!" she repeated. With a start that brought her up erect, alert, challenging, her lashes flickering, she recalled that Westerling had said at parting that he should see her if war came. This corroborated Lanstron's information. One side wanted a spy in the garden; the other a general in the house. Was she expected to make a choice? He had ceased to be Lanny. He personified war. Westerling personified war. "I suppose you have spies under his very nose—in his very staff offices?" she asked.

"And probably he has in ours," said Lanstron, "though we do our best to prevent it."

"What a pretty example of trust among civilized nations!" she exclaimed. "You say that Westerling, who commands the killing on his side, will be in no danger. And, Lanny, are you a person of such distinction in the business of killing that you also will be out of danger?"

She did not see, as her eyes poured her hot indignation into his, that his maimed hand was twitching or how he bit his lips and flushed before he replied:

"Each one goes where he is sent, link by link, down from the chief of staff. Only in this way can you have that solidarity, that harmonious efficiency which means victory."

"An autocracy, a tyranny over the lives of all the adult males in countries that boast of the ballot and self-governing institutions!" she put in.

"But I hope," he went on, with the quickening pulse and eager smile that used to greet a call from Feller to "set things going" in their cadet days, "that I may take out a squadron of dirigibles. After all this spy business, that would be to my taste."

"And if you caught a regiment in close formation with a shower of bombs, that would be positively heavenly, wouldn't it?" She bent nearer to him, her eyes flaming demand and satire.

"No! War—necessary, horrible, hellish!" he replied. Something in her seemed to draw out the brutal truth she had asked for in place of euphonious terms.

"When I became chief of intelligence I found that an underground wire had been laid to the castle from the Eighth division headquarters, which will be our general staff headquarters in time of war. The purpose was the same as now, but abandoned as chimerical. All that was necessary was to install the instrument, which Feller did. I, too, saw the plan as chimerical, yet it was a chance—the one out of a thousand. If it should happen to succeed we should play with our cards concealed and theirs on the table.

"The rest of Feller's part you have guessed already," he concluded. "You can see how a deaf, inoffensive old gardener would hardly seem to know a Gray soldier from a Brown; how it might no more occur to Westerling to send him away than the family dog or cat; how he might retain his quarters in the tower; how he could judge the atmosphere of the staff, whether elated or depressed, pick up scraps of conversation, and, as a trained officer, know the value of what he heard and report it over the phone to Partow's headquarters."

"But what about the aeroplanes?" she asked. "I thought you were to depend on them for scouting."

"We shall use them, but they are the least tried of all the new resources," he said. "A Gray aeroplane may cut a Brown aeroplane down before it returns with the news we want. At most, when the aviator may descend low enough for accurate observation he can see only what is actually being done. Feller would know Westerling's plans before they were even in the first steps of execution. This"—playing the thought happily—"this would be the ideal arrangement, while our planes and dirigibles were kept over our lines to strike down theirs. And, Marta, that is all," he concluded.

"If there is war, the moment that Feller's ruse is discovered he will be shot as a spy?" she asked.

"I warned him of that,' said Lanstron. "He is a soldier, with a soldier's fatalism. He sees no more danger in this than in commanding a battery in a crisis."

"Suppose that the Grays win? Suppose that La Tir is permanently theirs?"

"They shall not win! They must not!" Lanstron exclaimed, his tone as rigid as Westerling's toward her second prophecy.

"Yet if they should win and Westerling finds that I have been party to this treachery, as I shall be now that I am in the secret, think of the position of my mother and myself!" she continued. "Has that occurred to you, a friend, in making our property, our garden, our neutrality, which is our only defense, a factor in one of your plans without our permission?"

Her eyes, blue-black in appeal and reproach, revealed the depths of a wound as they had on the terrace steps before luncheon, when he had been apprised of a feeling for him by seeing it dead under his blow. The logic of the chief of intelligence withered. He understood how a friendship to her was, indeed, more sacred than patriotic passion. He realized the shame of what he had done now that he was free of professional influences.

"You are right, Marta!" he replied. "It was beastly of me—there is no excuse."

He looked around to see an orderly from the nearest military wireless station.

"I was told it was urgent, sir," said the orderly, in excuse for his intrusion, as he passed a telegram to Lanstron.

Immediately Lanstron felt the touch of the paper his features seemed to take on a mask that concealed his thought as he read:

"Take night express. Come direct from station to me. Partow."

This meant that he would be expected at Partow's office at eight the next morning. He wrote his answer; the orderly saluted and departed at a rapid pace; and then, as a matter of habit of the same kind that makes some men wipe their pens when laying them down, he struck a match and set fire to one corner of the paper, which burned to his fingers' ends before he tossed the charred remains away. Marta imagined what he would be like with the havoc of war raging around him—all self-possession and mastery; but actually he was trying to reassure himself that he ought not to feel petulant over a holiday cut short.

"I shall have to go at once," he said. "Marta, if there were to be war very soon—within a week or two weeks—what would be your attitude about Feller's remaining?"

"To carry out his plan, you mean?"

"Yes."

There was a perceptible pause on her part.

"Let him stay," she answered. "I shall have time to decide even after war begins."

"But instantly war begins you must go!" he declared urgently.

"You forget a precedent," she reminded him. "The Galland women have never deserted the Galland house!"

"I know the precedent. But this time the house will be in the thick of the fighting."

"It has been in the thick of the fighting before," she said, with a gesture of impatience.

"Marta, you will promise not to remain?" he urged.

"Isn't that my affair?" she asked. "Aren't you willing to leave even that to me after all you have been telling

"They Shall Not Win! They Must Not!"

how you are to make a redoubt of our lawn, inviting the shells of the enemy into our drawing-room?"

What could he say? Only call up from the depths the two passions of his life in an outburst, with all the force of his nature in play.

"I love this soil, my country's soil, ours by right—and I love you! I would be true to both!"

"Love! What mockery to mention that now!" she cried chokingly. "It's monstrous!"

"I—I—" He was making an effort to keep his nerves under control.

This time the stiffening elbow failed. With a lurching abruptness he swung his right hand around and seized the wrist of that trembling, injured hand that would not be still. She could not fail to notice the movement, and the sight was a magic that struck anger out of her.

"Lanny, I am hurting you!" she cried miserably.

"A little," he said, will finally dominant over its servant, and he was smiling as when, half stunned and in agony—and ashamed of the fact—he had risen from the debris of cloth and twisted braces. "It's all right," he concluded.

She threw back her arms, her head raised, with a certain abandon as if she would bare her heart.

"Lanny, there have been moments when I would have liked to fly to your arms. There have been moments when I have had the call that comes to every woman in answer to a desire. Yet I was not ready. When I really go it must be in a flame, in answer to your flame!"

"You mean—I—"

But if the flame were about to burst forth she smothered it in the spark.

"And all this has upset me," she went on incoherently. "We've both been cruel without meaning to be, and we're in the shadow of a nightmare; and next time you come perhaps all the war talk will be over and—oh, this is enough for today!"

She turned quickly in veritable flight and hurried toward the house.

"If it ever comes," she called, "I'll let you know! I'll fly to you in a chariot of fire bearing my flame—I am that bold, that brazen, that reckless! For I am not an old maid, yet. They've moved the age limit up to thirty. But you can't drill love into me as you drill discipline into armies—no, no more than I can argue peace into armies!"

For a while, motionless, Lanstron watched the point where she had disappeared.

CHAPTER VII.

Making a War.

Hedworth Westerling would have said twenty to one if he had been asked the odds against war when he was parting from Marta Galland in the hotel reception room. Before he reached home he would have changed them to ten to one. A scare bulletin about the Bodlapoo affair compelling attention as his car halted to let the traffic of a cross street pass, he bought a newspaper thrust in at the car window that contained the answer of the government of the Browns to a dispatch of the Grays about the dispute that had arisen in the distant African jungle. This he had already read two days previously, by courtesy of the premier. It was moderate in tone, as became a power that had 3,000,000 soldiers against its opponent's 5,000,000; nevertheless, it firmly pointed out that the territory of the Browns had been overtly invaded, on the pretext of securing a deserter who had escaped across the line, by Gray colonial troops who had raised the Gray flag in place of the Brown flag and remained defiantly in occupation of the outpost they had taken.

As yet, the Browns had not attempted to repel the aggressor by arms for fear of complications, but were relying on the Gray government to order a withdrawal of the Gray force and the repudiation of a commander who had been guilty of so grave an international affront. The surprising and illuminating thing to Westerling was the inspired statement to the press from the Gray foreign office, adroitly appealing to Gray chauvinism and justifying the "intrepidity" of the Gray commander in response to so-called "pin-pricking" exasperations.

At the door of his apartment, Francois, his valet and factotum, gave Westerling a letter.

"Important, sir," said Francois.

Westerling knew by a glance that it was, for it was addressed and marked "Personal" in the premier's own handwriting. A conference for ten that evening was requested in a manner that left no doubt of its urgency.

Curiosity made him a little ahead of time, but he found the premier awaiting him in his study, free from interruption or eavesdropping.

In the shadow of the table lamp the old premier looked his years. From youth he had been in politics, ever a bold figure and a daring player, but now beginning to feel the pressure of younger men's elbows. Fonder even of power, which had become a habit, than in his twenties, he saw it slipping from his grasp at an age when the downfall of his government meant that he should never hold the reins again. He had been called an ambitious demagogue and a makeshift opportunist by his enemies, but the crowd liked him for his ready strategy, his genius for appealing phrases, and for the gambler's virtue which hitherto had made him a good loser.

"You saw our communique tonight that went with the publication of the Browns' dispatch?" he remarked.

"Yes, and I am glad that I had been careful to send a spirited commander to that region," Westerling replied.

"So you guess my intention, I see." The premier smiled. He picked up a long, thin ivory paper-knife and softly patted the palm of his hand with it.

"Certainly!" Westerling replied in his ready, confident manner.

"We hear a great deal about the precision and power of modern arms as favoring the defensive," said the premier. "I have read somewhere that it will enable the Browns to hold us back, despite our advantage of numbers. Also, that they can completely man every part of their frontier and that their ability to move their reserves rapidly, thanks to modern facilities, makes a powerful flanking attack in surprise out of the question."

"Some half-truths in that," answered Westerling. "One axiom, that must hold good through all time, is that the aggressive which keeps at it always wins. We take the aggressive. In the space where Napoleon deployed a division, we deploy a battalion today. The precision and power of modern arms require this. With such immense forces and present-day tactics, the line of battle will practically cover the length of the frontier. Along their range the Browns have a series of fortresses commanding natural openings for our attack. These are almost impregnable. But there are pregnable points between them. Here, our method will be the same that the Japanese followed and that they learned from European armies. We shall concentrate in masses and throw in wave after wave of attack until we have gained the positions we desire. Once we have a tenable foothold on the crest of the range the Brown army must fall back and the rest will be a matter of skillful pursuit."

The premier, as he listened, rolled the paper knife over and over, regarding its polished sides, which were like Westerling's manner of facile statement of a program certain of fulfillment.

"How long will it take to mobilize?"

"Less than a week after the railroads are put entirely at our service, with three preceding days of scattered movements," answered Westerling. "Deliberate mobilizations are all right for a diplomatic threat that creates a furore in the newspapers and a depression in the stock market, but which is not to be carried out. When you mean war, all speed and the war fever at white heat."

"You would have made a good politician, Westerling," the premier remarked, with a twitching uplift of the brows and a knowing gleam in his shrewd old eyes.

"Thank you," replied Westerling, "a man who is able to lead in anything must be something of a politician."

"Very true, indeed. Perhaps I had that partly in mind in making you vice-chief of staff," responded the premier.

"Then it all goes back to the public—to that enormous body of humanity out there!" He swung the paper knife around with outstretched arm toward the walls of the room. "To public opinion—as does everything else in this age—to the people—our masters, your and mine! For no man can stand against them when they say no or yes."

"You know the keys to play on, though," remarked Westerling with a complimentary smile. "No one knows quite so well."

"And you are sure—sure we can win?" the premier asked with a long, tense look at Westerling, who was steady under the scrutiny.

"Absolutely!" he answered. "Five millions against three! It's mathematics, or our courage and skill are not equal to theirs. Absolutely! We have the power, why not use it? We do not live in a dream age!"

From a sudden, unwitting exertion of his strength the knife which had been the recipient of his emotions snapped in two. Rather carefully the premier laid the pieces on the table before he rose and turned to Westerling, his decision made.

"If the people respond with the war fever, then it is war," he said. "I take you at your word that you will win!"

"A condition!" Westerling announced. "From the moment war begins the army is master of all intelligence, all communication, all resources. Everything we require goes into the crucible!"

(TO BE CONTINUED.)

SHOW GRATITUDE FOR RELIEF

Elephants Cured of Toothache Give Every Demonstration of Thankfulness to the Dentist.

It is not easy to tell when an elephant has got the toothache, but it is best to keep out of his way when you do know it. A London surgeon, who had been for many years in India, says he would sooner risk a railway accident than meet an elephant with toothache.

It appears that toothache affects an elephant in a more severe manner than it does any other animal. Elephants have very sensitive nerves, and a touch of toothache often brings on madness.

Providing you are able to chain down an elephant and draw out the offending tooth, the brute is certain to be affectionate to you afterward. Here is an instance.

An elephant in Bengal, India, became affected with toothache, but the keepers managed to secure it while a dentist drew a decayed tooth—the cause of the trouble. After a time the elephant seemed to understand that the dentist was trying to do something for his pain, and he gave every evidence of appreciating the attention. When the operation was over he frisked round the dentist like a young lamb.

Origin of Dust.

It has been estimated that an average puff of smoke from a cigarette contains about four thousand millions of particles of dust. A single grain of indigo will impart color to a ton of water. It follows, therefore, that every drop of this water takes over on immense number of ultra-microscopic particles of indigo.

A few grains of fluorescein, a substance derived from coal tar, will produce a distinct fluorescense. To produce this result the fluorescein undergoes, of course, divisions into countless billions of particles. Almost every substance enters into the composition of dust.

Street dust shows morsels of iron and steel from the tires of wagons, horseshoes and the nails of men's boots, bits of leather from the harness, fragments of wood, cotton, wool, hair, paper, clay, sand, bacteria, etc.

Save the Dog.

The Oregon state board of health bulletin says wisely with reference to mad dogs, "never kill the animal that bit you, save it with the greatest care," for the condition that dog develops is of the greatest consequence to the person bitten. If the dog is killed, the negri bodies, which are of importance in the diagnosis, may not be developed and no one will ever know whether the dog was or was not rabid. But if the dog is saved he will himself within a week or ten days show whether or not be is rabid. If he proves himself clear of rabies the man bitten need give the matter no further consideration from that side, and if it prove that he be rabid, there is still plenty of time for the man to take the proper remedies. If a dog bites you, save the dog.

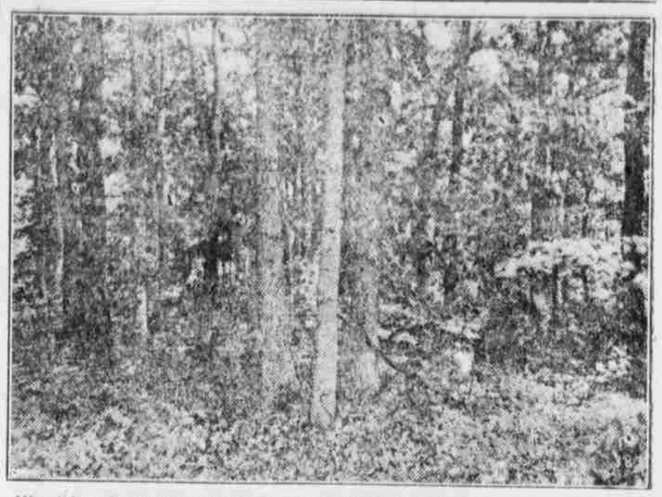
Why Flowers Flash.

The strange phenomenon exhibited by some red flowers of seeming to flash in the twilight, but only when the flower comes sideways into the range of vision, is explained by Prof. F. A. W. Thomas of Iena. He says twilight makes red seem brighter and green duller than in full daylight. As the image of the red flower moves from the peripheral part of the retina, where the rods are red-blind, to the fovea, the red is perceived more vividly than before, and this image coincides with the Purkinje after-image of the surroundings, giving the impression of a flash.

Qualified Rebuke.

Five-year-old Marie likes to see the funny pictures. She had the paper spread out on the floor looking at it when her father turned out the light. Mary was angry at this, and said, "You've got your nerve," but as she realized immediately whom she was talking to she hastily added, "But you know your rights."

TRUE VALUE OF WOOD LOT NOT REALIZED



Wood Lot Composed Mostly of Young White Oak in Excellent Condition—There is Thrifty Growth and Plenty of Young Trees Starting to Renew the Stand.

(Prepared by the United States Department of Agriculture.)

Most farmers already own wood lots; every farmer ought to own one. Yet the wood lot is frequently not a paying proposition financially, and is almost never as profitable as it should be. Why? Simply because the farmer does not realize its true value. As a result he neglects to care for the trees during their life, and is at a disadvantage when it comes to selling them. Any effort to improve present conditions must, therefore, take these two facts into consideration.

The essential point for every farmer to recognize, is that the trees in his wood lot are just as much a farm crop as are his corn, oats, hay, or other products. Moreover, they have many advantages over other crops—they require comparatively little care and labor; they can be harvested during the winter when other work is slack; there are no storage charges on the crop because trees can be left standing without deterioration an indefinite time until they can be sold profitably or used to advantage on the farms; and they furnish protection to buildings, to cattle, and to crops, from wind, drought and frost.

Unquestionably, then, the wood lot deserves better than the present neglect, or often worse, to which it is now subjected. No farmer would think for a moment of burning over a crop of young wheat. Yet that is just what many do with their crop of young trees. Nor is the damage confined to the young growth; even the larger trees, though seldom destroyed outright, are weakened so that eventually they will fall a prey to insects, fungi, or wind; furthermore, the fertility of the soil is greatly lessened by fires. Every fire that runs through a wood lot is a direct source of loss to the owner. The absolute exclusion of fire is, therefore, the first and most important step in the rational management of the wood lot.

Closely connected with this is the exclusion of stock, which do much damage in destroying and retarding young growth, particularly of broadleaf trees, and in packing down the soil and exposing the roots of trees.

Finally, the farmer should select the trees to be cut in such a way as to improve rather than impair the wood lot. Too often the reverse has been the case and the wood lot has deteriorated steadily through the removal of the best trees, leaving the less valuable species and poorer individuals to take possession of the ground. No knowledge of technical forestry is necessary to enable the farmer to recognize the trees which are defective, crooked, unusually branchy, or of undesirable species; or to realize that the cutting of these

Roots of Soft Maple Trees Exposed as the Result of Heavy Pasturing—The Soil Has Been Trampled and Washed Away.

for fuel and other uses to which they can be put on the farm will greatly increase the value of the remaining stand.

Equally important with the raising of the crop is its final disposal. Every farmer knows what his wheat is worth and what is the best way to sell it. Very few have any similar knowledge regarding their trees. In that fact lies the real explanation of the present unprofitableness of the wood lot. So long as the average owner knows less concerning the value of the timber than any other crop on his farm, he cannot hope to sell it at its true value. What kinds of products (posts, poles, ties, mine timbers, lumber, etc.), are in greatest demand in the locality? What species of trees are best adapted for each? In what sizes should the material be cut? By what unit of measure (cord, lineal foot, board foot, piece, etc.) should they be sold? What price should they bring on the basis of their value to the purchaser? These are samples of the questions that every farmer should be able to answer to his own satisfaction before attempting to dispose of his wood lot products. Even then he may be at a disadvantage when dealing singly with a purchaser who is more experienced in such matters and may have more or less control over the local market. Co-operation among wood lot owners in the disposal of their timber is consequently as necessary as in the disposal of their fruit, vegetables, or grains, and is frequently the only way in which they can secure its full value.

Above all, the secret of success in handling the wood lot, lies in the recognition of the fact that trees are a

Cattle Browsing on Young Oak and Hickory Stumps From the Wood Lot of the Year Before—If Cattle Were Kept Out, These Sprouts Could Get a Start and Stand Could Be Quickly Renewed.

distinctive farm crop. When this is once thoroughly understood and the same attention is paid to their production and marketing as to other crops, the wood lot may confidently be expected to become one of the most profitable portions of the farm.

MEAT AND GRAIN FOR FOOD

There Is Danger of Overfeeding Protein Rations to Increase Quantity and Quality of Eggs.

Foods containing protein are given cows to increase the milk production, and hens to increase the quantity of eggs and improve their quality. The dairyman understands full well that in feeding grains which furnish protein, to cows, a sufficient quantity of succulent food must be given to formulate the proper balance. Yet this same man protests when it is suggested that the same rule should apply to laying hens. The proper feeding of poultry is not so difficult as one would think, nor is the feeding of any animal, for that matter.

If one possesses a knowledge of the needs of the animal he is feeding, he will readily find out what foods will supply such needs. Feed the variety of grains by all means as well as an occasional supply of animal food. This same rule works the other way, so do not attempt to obtain results from green foods and grain at the expense of the animal food. In some way get at the properly balanced ration and then profitable results will follow.

Hog Cholera.

Hog cholera is a disease which seems to be stopped to a degree by the frosts of winter, although frost cannot be said to stop a case after it has taken hold of its victim. However, it seems to prevent the rapid spread of the disease. The result is that in spring time the affection is, as a rule, at the lowest ebb, but increases rapidly from that time until fall.

HORTICULTURAL NOTES

In some cases the orchardist ought to employ a disinterested person to do his packing.

* * *

Line the fruit basket with burlap, two or three thicknesses, to prevent bruising and scratching.

* * *

It tries a man's eyes and his honesty as well to see all the worm holes when packing his apples.

* * *

The high-headed tree is easier to cultivate, but the low-headed tree makes the fruit picking easier.

* * *

It is generally true that self-pollinated fruit is not as large or vigorous as fruit from crossed-fertilized blossoms on the same tree.

* * *

Never leave a sharp fork, that is, a branch which extends at right angles out from the trunks. Such forks generally split down sooner or later and destroy the entire tree.

* * *

The ground dries out more quickly under a high-headed tree and more fruit is blown off by the wind. When you find cross branches rubbing each other cut one of them out.