The Quality of "SALADA" TEA

H552

is most appreciated in the rich, delicious flavor. Try it today.

Woman's Sphere

THE UNEXPECTED HOLIDAY.

"You dears!" Flora cried. "Come right in. If this isn't the most perfect ending to our wonderful day! You'll have to excuse the looks of things; Rob had an unexpected holiday, and the whole family dropped everything and flew to celebrate. We've been over on Black Mountain. You see the fruits of Margie's day." She waved her hand gaily to various jars and bowls of flowers. "Stuart's addition to his personal property is a turtle and some pine cones; they're all out in the shed."

"And I know about fireflies; father told me," Stuart volunteered.

"I know about fireflies, too," Margie added.

"When I grow up I'm going to know all about bugs an' animals an' everything," Stuart declared.

"With so much before you, you'll have to get a good start now," Flora admonished him. "Now say good-night and then to bed."

They said good-night, and after making her guests comfortable Flora excused herself and followed the children upstairs.

"Just once in an age," she said when she returned, "there's a day that's clear blue from its first moment to its last. I thought it was enough simply to have the unexpected holiday, and then to come home to friends——"

The evening passed swiftly—as evenings at Flora's always passed. To one of her guests at least Flora seemed beyond all other persons she knew to have the gift of living. But the other guest felt differently.

"I've known Flora Bruce for five years," she said on the way home, "but I never dreamed she was like that."

"Like what?" inquired the other.

"Why, to go off and leave her rooms undusted. Did you see the floor? And the way the children had strewn the flowers about! Wouldn't you think she'd want them to feel the atmosphere of order round them? It would have taken such a little while to straighten things up."

Flora's friend drew a hard breath. "Things!" she cried. "Things! I get so sick of the way we let ourselves be chained to them. There are three hundred and sixty-five days in the year to dust the room and mop the floors, and perhaps not one other day for such a chance for joy, something to live in the memories of those children forever—a chance to make them realize the wonder of the world they live in. You know how dainty Flora's house usually is, but she never confuses values. Don't you see?"

USING GREEN TOMATOES.

Many housekeepers use chopped green tomatoes in place of apples when preparing their winter supply of mincemeat and find them an excellent substitute. The tomatoes should be used in the same proportion as apples, two parts to one of meat. To preserve the vegetable for use later in mincemeat, chop fine eight pounds of green tomatoes, to which add six pounds of light brown sugar, one-half ounce each of ground cinnamon and cloves and let stand eight or ten hours. Then simmer slowly until the tomatoes are clear and thick. Seal boiling hot in airtight jars.

Use in Pies—The pie-eating members of the family will enjoy the pie which is filled with the following: To twelve pounds of sliced green tomatoes add half a gallon of molasses, one and one-half thinly sliced lemons (from which the seeds have been removed), ground spice to taste, and simmer gently for three hours. This will keep without sealing.

Green Tomato Preserves — Few housewives realize that one of the very best preserves may be made from green tomatoes, and as they are so much cheaper than any variety of fruit a number of jars should be added to the storeroom shelves.

If large tomatoes are used cut them in halves, then quarter the halves. Allow three-quarters of a pound of granulated sugar to each pound of the vegetable and one thinly sliced lemon. Put the sugar with just enough cold water to dissolve it in the preserving kettle, add the tomatoes and lemon and simmer until the tomatoes are almost transparent and the syrup quite thick. Seal tight. Very small green tomatoes may be preserved whole by using the same formula, but it will take them longer to cook.

Sweet Pickle—A very delicious sweet pickle may be made from green tomatoes. Chop fine one peck of the vegetable, four white onions and six green peppers (with the seeds removed). Sprinkle over them a scant cup of salt and let them stand over night. In the morning drain and add half a cup of grated horseradish, two cups of brown sugar, two tablespoons of mixed spices (cloves, cinnamon and nutmeg), and enough cold water to cover the ingredients. Cook down until thick, stirring often, and seal hot in air-tight jars.

Sour Pickle—Place in a granite kettle two gallons of green tomatoes, without peeling, but sliced; twelve large white onions, also sliced; two quarts of vinegar, one pint of sugar, two tablespoons of salt, the same quantity of black pepper and of ground mustard, one tablespoon of ground allspice and one tablespoon of cloves. Mix well and cook slowly until tender, stirring frequently so it will not scorch. Put in small jars, sealing while hot.

CLEANING WALLS.

This is the way a professional housecleaner cleaned my blackened and smoky kitchen walls:

Make a smooth cooked starch, a little thinner than for starching clothes, and put this all over the walls and ceiling in a thin coat. Either a clean cloth or a brush is suitable for putting it on. By the time you have finished, or in twenty or thirty minutes, you can wash this starch—and the smoke, grease and dirt—off with clean cloths wrung out of warm soft water.

It is really just like magic and beats any soap or scouring powder I have ever seen. An added advantage is that it is not so cruel to hands as the usual method of strong suds.

SOAP ECONOMY.

Save all the odds and ends of toilet soap of every description. When enough has been accumulated, break in very small pieces and put through the food chopper, using the medium cutter first, and then the fine cutter.

To one cupful of this granulated soap add one and a half cupfuls of cornmeal and put through the food chopper again until it is reduced to a coarse meal. When all will pass readily through a meal sieve add one ounce of olive oil to each two and a half cupfuls of the soap and cornmeal mixture. Blend thoroughly. An ordinary fruit jar with the rubber ring in place makes a good container. A quantity of this soap powder kept on the kitchen sink or in the bathroom will be found invaluable for cleansing very soiled hands and keeping them soft and smooth.

A GOOD FLY DOPE.

When the flies stick close to the screen doors in the late fall, I find that this mixture sprayed well around the door keeps them away to a great extent. The mixture is made by mixing three ounces of creolin with kerosene and applying it with a hand spray to any place where the flies bother. If the bench which holds the swill pails for the pigs is sprayed with this, many of the flies will be driven away.—Mrs. J. B. E.

Minard's Liniment Heals Cuts.

WRIGLEY'S

After every meal

A pleasant and agreeable sweet and a l-a-s-t-i-n-g benefit as well.

Good for teeth, breath and digestion.

Makes the next cigar taste better.

ISSUE No. 40—'24.

PENNY PLAIN

BY O. DOUGLAS

Shopman—"You may have your choice—penny plain or two-pence colored."

Solemn Small Boy—"Penny plain, please. It's better value for the money."

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CHAPTER XII.—(Cont'd.)

"Oh," cried Pamela, "you are so cruel to the girl I once was. The years mellow. Surely you welcome improvement, even while you remind me of my sins and faults of youth."

"I don't think," Lewis Elliot said slowly, "that I ever allowed myself to think that the Pamela Reston I knew needed improvement. That would have savored of sacrilege. . . . Are we finished? We might have coffee in the other room."

Pamela looked at her host as she rose from the table, and said, "Years have brought clearer eyes for faults."

"I wonder," said Lewis Elliot, as he put a large chocolate into Mhor's ever-ready mouth.

Before going home they went for a walk up the glen. Jean and the boys, very much at home, were in front, while Lewis named the surrounding hills and explained the lie of the land to Pamela. They fell into talk of younger days, and laughed over episodes they had not thought of for twenty years.

"And, do you know, Biddy's coming home?" Pamela said. "I keep remembering that with a most delightful surprise. I haven't seen him for more than a year—my beloved Biddy!"

"He was a most charming boy," Lewis said. "I suppose he would be about fifteen when last I saw him. How old is he now?"

"Thirty-five. But such a young thirty-five. He has always been doing the most youth-preserving things, chasing over the world after adventures, like a boy after butterflies, seeing new peoples, walking in untrodden ways. If he had lived in more spacious days he would have sailed with Francis Drake and helped to singe the King of Spain's beard. Oh, I do think you will still like Biddy. The charm he had at fifteen he hasn't lost one little bit. He has still the same rather shy manner and slow way of speaking and sudden, affection-winning smile. The War has changed him, of course, emptied and saddened his life, and he isn't the light-foot-lad he was six years ago. When it was all over he went off for one more year's roving. He has a great project which I don't suppose will ever be accomplished—to climb Everest. He and three great friends had arranged it all before the War, but everything of course was stopped, and whatever happens he will never climb it with those three friends. They had to scale greater heights than Everest. It is a sober and responsible Biddy who is coming back, to settle down and look after his places, and go into politics, perhaps——"

They walked together in comfortable silence.

Jean, in front, turned round and waved to them.

"I'm glad," said Lewis, "that you and Jean have made friends. Jean—" He stopped.

Pamela stood very still for a second and then said, "Yes?"

"Jean and her brothers are sort of cousins of mine. I've always been fond of them, and my mother and I used to try to give them a good time when we could, for Great-aunt Alison's was rather an iron rule. But a man alone is such a helpless object, as Mrs. Hope often reminds me. It isn't fair that Jean shouldn't have her chance. She never gets away, and her youth is being spoiled by care. She is such a quaint little person with her childlike face and motherly ways! I do wish something could be done."

"Jean must certainly have her chance," said Pamela. She took a long breath, as if she had been under water and had come to the surface. "I've said nothing about it to anyone, but I am greatly hoping that some arrangement can be made about sending the boys away to school and letting me carry off Jean. I want her to forget that she ever had to think about money worries. I want her to play with other boys and girls. I want her to marry."

"Yes, that would be a jolly, good scheme." Lewis Elliot's face was hearty in its agreement. "It really is exceedingly kind of you. You've lifted a weight from my mind—though what business I have to push my weights on to you. . . . Yes, Jean, perhaps we ought to be turning back. The car is ordered for four o'clock. I wish you could stay for tea, but I expect you are dying to get back to Priorsford. That little town has you in its thrall."

"I wish," said Jock, "that The Rigs could be lifted up by some magician and plumped down in Laverlaw Glen."

"Oh, Jock, wouldn't that be fine?" sighed the Mhor. "Plumped right down at the side of the burn, and then we could fish out of the windows."

The sun had left the glen, the Laverlaw Water ran wan; it seemed suddenly to have become a wild and very lonely place.

"Now I can believe about the raiders coming over the hills in an autumn twilight," sadi Pamela. "There is something haunted about this place. In Priorsford we are all close together and cosy; that's what I love about it."

"You've grown quite suburban," Lewis taunted her. "Jean, I was told a story about two Priorsford ladies the other day. They were in London and went to see Pavlowa dance at the Palace, for the first time. It was her last appearance that season, and the curtain went down on Pavlowa embedded in bouquets, bowing her thanks to an enraptured audience, the house rocking with enthusiasm. Then one Priorsford lady turned to the other Priorsford lady and said, 'Awfully like Mrs. Wishart!'"

As the car moved off, Jock's voice could be heard asking, "And who was Mrs. Wishart?"

CHAPTER XIII.

Miss Bella Bathgate was a staunch supporter of the Parish Kirk. She had no use for any other denomination, and no sympathy with any but the Presbyterian form of worship. Episcopaleans she regarded as beneath contempt, and classed them in her own mind with "Papists"—people who were more mischievous and almost as ignorant as "the heathen" for whom she collected small sums quartely, and for whom the minister prayed as "sitting in darkness." Miss Bathgate had developed a real, if somewhat contemptuous, affection for Mawson, her lodger's maid, but she never ceased to pour scorn on her "English ways" and her English worship. If Mawson had not been one of the gentlest of creatures she would not have tolerated it for a day.

One wet and windy evening Bella sat waiting for Mawson to come in to supper. She had gone to a week-night service at the church, greatly excited because the Bishop was to be present. The supper was ready and keeping hot in the oven, the fire sparkled in the bright range, and Bella sat crocheting and singing to herself, "From Greenland's icy mountains." For Bella was passionately interested in missions. The needs of the heathen lay on her heart. Every penny she could scrape together went into "the box." The War had reduced her small income, and she could no longer live without letting her rooms, but whatever she had to do without her contributions to missions never faltered; indeed, they had increased. Missions were the romance of her life. They put a scarlet thread into the grey. The one woman she had ever envied was Mary Slessor of Calabar.

Mawson came in much out of breath, having run up the hill to get out of the darkness.

"Weel, and hoo's the Bishop?" Bella said in jocular tones.

"Ow, 'e was lovely. 'E said the Judgment was 'anging over all of us."

"Oh, wumman," said Bella as she dumped a loaf viciously on the platter, "d'ye need a Bishop to tell ye that? I'm sure I've kent it a' ma days."

"It gives me the creeps to think of it. Imagine standin' h'up before h'all the earth and 'aving all your little bits o' sins fetched out against you! But"—hopefully—"I don't see myself 'ow there'll be time."

"Ay, there'll be time! There'll be a' Eternity afore us, and as far as I can see there'll be naething else to do."

"Ow," Mawson wailed. "You do make it sound so 'orrid, Bella. The Bishop was much more comfortable, and 'e 'as such a nice rosy face you can't picture anything very bad 'appening to 'im. But I suppose Bishops'll be judged like every one else."

"They will that," Bella's tone was emphatic, almost vindictive.

"Oh, well," said Mawson, who looked consistently on the bright sides, "I dare say they won't pay much h'attention to the likes of us when they're Kings and Bishops and M.P.'s and London ladies to judge. Their sins will be a bit more interestin' than my little lot. . . . Well, I'll be glad of a cup of tea, for it's thirsty work listening to sermons. I'll just lay me 'at and coat down 'ere, if you don't mind, Bella. Now, this is cosy. I was thinkin' of this as I came paddlin' over the bridge listening to the sound of the wind and the water. A river's a frightenin' sort of thing at night and after 'earin' about the Judgment too."

Miss Bathgate took a savory-smelling dish from the oven and put it, along with two hot plates, before Mawson, then put the teapot before herself and they began.

"Whaur's Miss Reston the nicht?" Bella asked, as she helped herself to hot buttered toast.

"Dinin' with Sir John and Lady Tweedie. She's wearin' a lovely new gown, sort of yellow. It suited her a treat. I must say she did look noble. She is 'andsome, don't you think?"

"Terrible lang and lean," said Miss Bathgate. "But I'm no denyin' that there is a kind o' look aboot her that's no common. She would mak' a guid queen if we had ony need o' anither."

(To be continued.)

Finishing Lambs.

Those farmers who will cater to the market demand for a well-finished lamb ranging from 85 to 100 pounds live weight, depending on the breed and season of the year, should find a source of profit in so doing. Usually the well bred lamb weighing from 60 to 80 pounds is the best stocker lamb to put into winter quarters. The most profitable time to purchase such lambs is between August and November. Heavy lambs weighing from 80 to 110 pounds should be avoided as they make small gains at a high cost per pound, although, if thin and not exceeding 100 pounds in weight, they may with profit be given a short finish in feed lot and pasture. Useful information on the subject will be found in Pamphlet No. 16, "Finishing Lambs for the Block," issued by the Dominion Dept. of Agriculture at Ottawa.

Cigar Bands.

Brown—"Say, how do you like that cigar. When you save up two hundred bands they give you a gramophone."

Smith—"If I smoked two hundred of those things I wouldn't want a gramophone; I'd want a harp."

Starting at Four.

So—the Southdown beauties were smoothed and brushed,
And the feathery geese and Jersey cow;
Then the clock was wound; the house was hushed;
And you fell to your dreams you knew not how.

For to-morrow opened the county fair,
How you shivered and thrilledd at joys in store—
At the hamper packed and waiting there
And the magical word, "We'll start at four."

There were silver maples along the way,
And they caught at the moon and held the moon;
While a mocking bird took shine for day
And was trilling its morning song too soon.

There had been a fog like a rain that night;
With the wheels of the spiders' mist-gray lace;
And the road led under boughs drenched white,
While they icily sprayed each upturned face.

With a tinkle-tink on a shadowed ridge
There were cattle a-grazing down the dawn;
And wheels rang out on a ghostly bridge,
And a whispering creek was past and gone.

Oh, the sun came up on an unknown land,
From a tapering hill you did not know;
There were small neat farms on either hand;
And a shimmering haze hung far and low.

There were drowsy croonings like broken rimes;
And the wheels as they turned seemed drowsy too—
Then you woke from dreams of fairy chimes;
Lo! a merry-go-round was calling you.

—Gertrude West, in Youth's Companion.

What Can You Remember?

An Indian student who visited London recently is a human calculating machine. He performs the most intricate sums without resorting to pencil and paper and can name immediately the day of the week for any date in the past or future.

As a test, two numbers, each of forty figures, were chalked on a blackboard. The Indian was told to multiply one by the other. After less than half an hour's mental arithmetic he gave the correct answer.

A great Greek scholar knew by heart every line of his favorite classic. He said, however, that his memory was a curse, since it compelled him to remember things he would rather forget.

Another man could repeat, word for word, any sermon he had heard. One of his feats was to walk down a busy street and then, at the end, repeat every sign displayed in the thoroughfare.

An Italian who had a wonderful memory was able to save a friend twelve months work. The friend came to him lamenting the loss of a manuscript which had taken a year to write. The Italian sat down and rewrote the entire manuscript from memory, although his friends had only shown it to him on two occasions.

A negro cloak-room attendant at a hotel had an amazing memory for faces. During large parties he would take charge of the belongings of three hundred guests and return them to their proper owners without the aid of checks or tickets. He relied solely upon his memory and he never made a mistake.

For Sore Feet—Minard's Liniment

Where She Works.

"You work at a factory?" a woman was asked at Shoreditch County Court.

"Woman—'Don't be foolish, young man! My factory is at home—I have eleven children."

A French scientist says there are 1,000 poisonous gases that are available for war, which makes a thousand more reasons why there should be no more war.

"DIAMOND DYES"

COLOR THINGS NEW

Beautiful home dyeing and tinting is guaranteed with Diamond Dyes. Just dip in cold water to tint soft, delicate shades, or boil to dye rich, permanent colors. Each 15-cent package contains directions so simple any woman can dye or tint lingerie, silks, ribbons, skirts, waists, dresses, coats, stockings, sweaters, draperies, coverings, hangings, everything new.

Buy "Diamond Dyes"—no other kind—and tell your druggist whether the material you wish to color is wool or silk, or whether it is linen, cotton, or mixed goods.

NURSES

The Toronto Hospital for Incurables, in affiliation with Bellevue and Allied Hospitals, New York City, offers a three years' Course of Training to young women, having the required education, and desirous of becoming nurses. This Hospital has adopted the eight-hour system. The pupils receive uniforms of the School, a monthly allowance and travelling expenses to and from New York. For further information apply to the Superintendent.

Teaching.

Delightful task! to rear the tender Thought,
To teach the young idea how to shoot,
To pour the fresh Instruction o'er the mind,
To breathe the enlivening Spirits, and to fix
The generous Purpose in the glowing breast.

—Thomson—The Seasons.

New Island in Azov.

As a result of a terrific maritime convulsion a new island has sprung up in the Sea of Azov, an arm of the Black Sea. The island is a dangerous impediment to navigators and beacons have been erected to warn the approaching ships.

CREAM

We Make Payments Daily.
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Highest Ruling Prices Paid.
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It Stays on the Job!

You can bank on a "444" Day after day, month after month Smart's "444" Axe will stand the going where the going is hardest.

Get your hardware man to show you a "444". Note the hang and the feel of it—A real axe with a firebiued finish that resists rust.

CANADA FOUNDRIES & FORGINGS LIMITED

JAMES SMART PLANT
BROCKVILLE ONT.

Farmers' Bulletins and how to Obtain Them

The publications of the Dominion Department of Agriculture are obtainable free of charge on request, with exception noted.

They contain helpful information on all subjects relating to farming.

They number some four hundred in all, and the following are examples:

List of Publications.
Seasonable Hints.
Preparing Poultry Produce for Market.
Winter Egg Production.
Wintering Bees in Canada.
Root and Storage Cellars.
The Safe Handling of Commercial Live Stock.
The Bacon Hog and Hog Grading.
Finishing Lambs.
Selection of Lamb Cuts.
Preservation of Fruits and Vegetables for Home Use.
Insects Affecting Live Stock.
Farmer's Account Book—Price 10 cents.

Cut out this advertisement, mark on it the bulletins desired, including the full List of Publications, fill in your name and address, and mail to:

Publications Branch,
Department of Agriculture,
Ottawa, Canada.
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R. R. No.....

Province.....

12

WATER POWER IN MINING INDUSTRY

HYDRAULIC INSTALLATION OVER 277,600 HORSE POWER.

Ontario and Quebec, Lacking Native Coal Deposits, Lead in Water Power.

The recent revival of activity in the mining industry of Canada has stressed the necessity of ample supplies of power available at a cost that will permit of the production and treatment of large quantities of raw materials in the districts in which the mines occur. The extent to which this need has been met by the development of Canada's advantageously located water powers has been made the subject of special study by the Dominion Water Power Branch.

The theory is often advanced that Canada is likely to become the leading mineral-producing country of the world, and considerable ground for this assumption is found in the fact that the Dominion contains 16 per cent. of the world's known coal resources, has greater asbestos, nickel, and cobalt deposits than any other country, and ranks third in the production of gold, whilst the diversity of her mineral endowment is indicated by the fact that the three main divisions, metallic, non-metallic, and structural and clay products, include some 60 principal items, 17 of which had, in 1923, a production value of $1,000,000 or over.

Average Annual Five-Year Value.

Figures of total production fail to convey the proper impression of the magnitude of the industry on account of the diversity of product and units involved, whilst the varying prices attendant upon uctuating market conditions make computations of value difficult. Probably the fairest conception of the value of the output may be arrived at by stating that the lowest value since 1910 was that for 1911, viz., $103,221,000, the highest that for 1920 when a value of $227,860,000 was reached, while the average annual value during the last five-year period amounted to $194,957,000. As commodity prices reached a peak in 1920, and have since receded, production computed in terms of value is not a fair basis for comparison. A weighted index showing the volume of production would undoubtedly mark 1923 as the banner year in Canada's mineral industry, new output records being established in that year for coal, lead, zinc, asbestos, and for the value of cobalt.

The principal uses of power in mining are for compressing air for drilling; driving motors or engines for hoisting; haulage of ore above and below ground; driving ore crushers and conveyors; pumping for water supply and for the removal of ground water; lighting; heating; ventilating; signalling; machine; blacksmith and framing shops; and for various electrical metallurgical processes. Even in the comparatively simple taffing processes involved in the recovery of coal, as much as 10 per cent. of the product may be consumed in generating the power required.

Total Installation for Mining Purposes.

From estimates made by the Dominion Water Power Branch it is computed that at January 1st, 1924, the hydraulic installation for mining purposes in Canada had reached a total of 277,600 h.p., of which 233,000 h.p. is purchased from central electric stations. An conservative estimate of the capital investment necessary to develop this power is $74,000,000.

From the point of view of minerals and the development of mining, Canada may be divided into five main areas, the Maritime Provinces, Quebec, Ontario, the Prairie Provinces, and British Columbia and the Yukon. Each of these areas possesses large resources of water power developed or available for development for mining. With the exception of some of the coal fields of the Central Plain there is no mineralized area for which ample power cannot be made available. This is particularly the case in Ontario and Quebec, which, being situated in the acute fuel area of Canada, would be almost entirely dependent upon coal imported from the United States were it not for hydraulic power.

Available and Developed Power.

The department's latest table of available and developed water power in Canada, corrected to February 1st, shows a total available 24-hour power, at 80 per cent. efficiency, of 18,225,316 h.p. at ordinary minimum flow, and 32,075,998 h.p. at ordinary six months' flow, and a total turbine installation in Canada of 3,226,414 h.p. Reference to the table shows the fortunate distribution of water power throughout Canada. The two provinces without native coal, Ontario and Quebec, lead in the possession and utilization of water power, followed closely by Manitoba, where only lignite coal is found. So far as information is available, there is no prospective mineral area in the Dominion, with the exception of some of the coal fields of the middle plains where hydraulic energy cannot be made available.

Nature repairs her ravages, repairs them with her sunshine and with human labor.—George Elliot.

DOCTORING

BY A. S. AI

Every farmer should have, in a dustproof case or satchel, not only the instruments necessary for simple live-stock operations, but the appliances and dressings used in that connection. For operation and diagnoses, a veterinarian should be called, but so often there is none within reach.

There should be a roll of sterile absorbent cotton, some rolled bandages of unbleached muslin, or preferably those prepared ready for use by surgical supply houses. In addition have four Derby bandages and four flannel bandages for use in lameness "stocking" of the legs, and surgical cases, or to give support and comfort in sickness. Also keep oakum for packing abscess cavities and for use on the soles of the hoofs. Plaster of Paris bandages and a supply of suture silk and surgeon's tape or plaster will also be needed.

Some of the instruments needed are: Knives for the castration of young calves, pigs and lambs; curved scissors and clippers for the removal of hair; suture needles; shoer's hoof knives, rasps and a foot pick; a bone saw or dehorning shears, where sheep are handled; nose rings and a ringing instrument for hogs; milking tubes; teat dilator and air inflation outfit for milk fever in cows; a trocar and canula for tapping a bloated cow and for inserting bull rings (one or two of which should be kept on hand); a two-ounce metal syringe and a vaginal irrigating apparatus; a nose twitch for restraining horses; ear marker or punch; a rectal injection pump, hose, nozzle and funnel; a drenching bottle and a noosed cotton rope, pulleys and overhead ice-tong hooks, for use when administering a drench to a horse.

MEDICINES NEEDED.

All medicines for animals on a farm should be kept in a trunk, in a close, dark, locked cupboard. Powdered drugs should be kept in airtight containers, such as sterilized fruit jars. Fluids should be kept in stoppered or tightly corked bottles or jars. All drugs should be plainly labelled, and, if dangerous, should be marked "poison." Throw away any drug the label is lost and you are not sure what the drug is.

A glass graduate will be needed for measuring liquids; a scales for weighing quantities; a pestle and mortar for powdernig and mixing; a fine sifter for mixing powders and reducing lumps and coarse particles; a plate glass or slate slab and spatula for mixing ointments; tin boxes for containers, and a supply of clean bottles and corks. The veterinarian will need and use these conveniences on many occasions.

All drugs kept on the farm should be simple and safe. The trained veterinarian uses many strong drugs, alkaloidal poisons and biologic preparations called serums, vaccines, and bacterins which can not properly be given by the stockman. It would be well to get from a veterinarian a colic drenches for use in case of emergency.

DOSES FOR LIVESTOCK.

Doses (alkaloids excepted): Colts, half as much again for cattle as for horses; one-half as much again for sheep and goats as pigs; one-half as much for cats as dogs. In other words, horses, 1; cattle, 1½; sheep and goats, 1-5; pigs, 1-8; dogs, 1-16; cats, 1-32.

The dose of most powdered drugs for the horse is about one dram; except the alkaloids. The dose of most fluid extracts for the horse is about one dram, not including poisons, such as aconite. The dose of tinctures is about one ounce. A teaspoonful represents about one dram; a dessertspoonful, two drams; a tablespoonful, about one-half ounce; a wineglass, two ounces; a coffee cup, five to six ounces (one-half pint).

One dram equals 60 drops; one ounce, eight drams; twelve ounces, one pound. Apothecaries' weight: ounces, 1 pound. Avoirdupois.

In proportioning the dose of medicine to the age of the animal given a horse 3 years old and upward, 1 part; 1½ to 3 years, ½ part; 9 to 18 months, ¼ part; 4½ to 9 months, ⅛ part; 2½ to 4½ months, 1-16 part.

Cattle and sheep take medicine in the same proportions stated for the horse, but starting with an animal 2 years old and upward for the full dose. Pigs of 1½ years and upward take 1 part; 9 to 18 months, ½ part; 4½ to 9 months, ¼ part; 2½ to 4½ months, 1-9 part; 1 to 2 months, 1-18 part.

MAKING UP SOLUTIONS.

A 1 to 100 solution contains 6 drams to 1 pint.

A 1 to 500 solution contains 120 grains to 1 pint.

A 1 to 1,000 solution contains 60 grains to 1 pint.

A 1 to 2,000 solution contains 30 grains to 1 quart.

A 1 per cent. solution contains 6 drams to 1 pint, or 1.28 ounces to a gallon.

A 5 per cent. solution contains 6 drams to 1 pint, or 6.4 ounces to a gallon.

PURGATIVES AND LAXATIVES.

Purgative or laxative drugs in powder form are:

Glauber's salt, a saline salt used for all animals and especially to stimulate activity of the liver; should be dissolved in hot water, sweetened with molasses, if desired, given in large quantities as a drench or may be added in small doses to the soft feed or drinking water, the

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