

The **CANADIAN** THRESHERMAN AND **FARMER**

WINNIPEG CANADA

OCTOBER

NINETEEN SIXTEEN

BETTER FARMING — BIGGER CROPS — BETTER PRICES



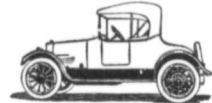
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Announcing The Reo Models and Prices

Two Important Price Reductions—Two Interesting New Models

Prefaced by a Few Pertinent Paragraphs
Pertaining to the Reo Policy and Program



The New Four-Cylinder, 3-passenger Reo Roadster, \$1225



The New Reo the Fifth, "The Incomparable Four," \$1225



The New Four-Cylinder Reo Enclosed Car, \$1430



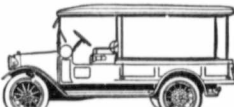
The New 4-passenger Reo Six Roadster, \$1600



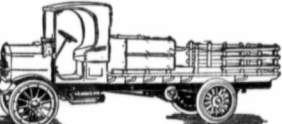
The New 7-passenger Reo Six Touring Car, \$1600



The New Reo Six 7-passenger Sedan, \$2350



1500-pound Reo "Sword Wagon," \$1425



2-ton Reo Truck (Chassis only)
with Driver's Seat and Cab, \$2150

FIRST LET US SAY, since it is relevant at this time, that Reo has not, is not now, and will not be concerned in, or a part of, any merger, combination or consolidation with other automobile concerns.

THE AIR HAS BEEN FULL of rumors of proposed plans for the uniting of several rival concerns for weeks past. The wisest rumors have gained currency and some credence.

ANY CONCERN THAT COULD by its financial standing lend strength, by its organization and experience lend confidence; or by its reputation lend respectability to such a plan, has been mentioned in the gossip.

AND SO REO, THE PIONEER—financially one of the strongest in the world—has been much discussed, much coveted by promoters.

HAT'S WHY WE SAY at this time—and we desire to make it as strong and clear as words can convey—Reo is not and will not be one of these.

REO WILL CONTINUE to do business at the old stand in the old Reo way, striving from day to day to give to Reo buyers just as much of value as our experience and facilities will permit—and that, as you already know, has always been just a little more than you could obtain elsewhere.

WE HAVE NOTHING TO SELL, we Reo folk. Nothing save the legitimate product of our factories.

WE ARE MANUFACTURERS—not promoters. Merchandisers—not stock manipulators.

THAT WHICH WE HAVE we prize so highly none other could see the value we'd put on it.

WE HAVE A PERMANENT business—of how many other automobile concerns can that be truly said. That asset—who can inventory—who appraise?

NO; WE HAVE NOTHING TO SAY against such combinations, nor against those who make or who join them. Undoubtedly they are good—for those on the inside.

WE WILL SAY THIS THOUGH—that the spirit of "I've got mine, so I don't care," which is invariably preceded by "When I get mine, etc.," has, in our opinion, seriously retarded this great industry and lowered the general standard of the product.

TOO FEW HAVE BUILT for permanency—too many, alas, for the quick clean-up.

GROOMING A BUSINESS for such a coup involves forcing production to the limit to show paper profits—and the result is a product of mediocre quality at best.

THE REO POLICY IS SUCH; the Reo product is such; Reo reputation is such; that this business is as sound, as permanent, as sure as any other business in the world—in or out of the automobile industry—bar none. It is so regarded by bankers and business men the world over.

ASK YOUR OWN BANKER—he will tell you. SO WHAT COULD WE GET in return for this business (honestly get, of course) that would be a fair exchange.

THIS BUSINESS WAS CONCEIVED IN PRIDE—and that pride of achievement is its greatest guarantee of quality in the product to you—and of its permanence to us.

THEN THERE'S THAT OTHER ANGLE that some might call foolish sentiment but which we, old fashioned Reo folk, regard most seriously—namely, the obligations we have assumed toward distributors and dealers and buyers of Reo Motor Cars and Motor Trucks.

COULD WE, IN HONOR, entrust to any other the fulfillment of those obligations—and enjoy the money we had received?

WE REO FOLK HOLD that the sale of a car is not the consummation, but only the beginning of a transaction. TO OUR WAY OF THINKING we assume, at the time we accept the check in payment, an obligation that shall endure so long as that car is in operation.

YOU SEE, WE ARE OLD FASHIONED—very old fashioned, we've been told.

BUT THIS IS AN AD and we should talk business—"hard cold business" in an ad. So we'll say no more on that subject. Leave it to those who are interested in such things—those who have a price.

YOU WANT TO KNOW—everybody always wants to know—what models Reo will make the coming year, and the price of each.

OF COURSE THERE ARE NO NEW MODELS—new chassis models we mean. You do not look for, do not expect, do not want new chassis models from Reo.

THAT ISN'T THE REO WAY. Refinements—of course. Detail improvements—wherever and whenever we can find a place or a way to make them.

NEW BODY TYPES—YES—and some that put Reo in the highest class of cars in looks as well as in performance and longevity. We'll treat of each in turn.

REO THE FIFTH COMES FIRST, of course. First not only among Reos, but among motor cars.

FOR THIS IS THE GREATEST automobile ever built, we verily believe.

THIS IS THE SEVENTH SEASON that Reo the Fifth has been standard in practically its present form.

NO; THE PRICE WILL NOT BE CHANGED this season. We will not increase—we cannot lower it.

ACTUAL COST OF MAKING is now more (\$50 more) than when the present price, \$1225, was set a year ago. And we had made this model so long; had so refined and perfected manufacturing processes; had reached such a high state of efficiency in production; and cut dealer's discounts so low that we had, then, reached rock bottom.

TODAY YOU SEE OTHERS increasing prices all along the line. They must do so. They have no choice.

ORDINARY BUSINESS RULES dictate that we, so "tilt" the price of Reo the Fifth \$50 at least.

BUT REO PRIDE PROMPTS that we absorb the extra cost, as we have for months past, and keep the price where it is until conditions will, happily, return to normal.

THE FOUR-CYLINDER ROADSTER—same wonderful chassis, same price, is the smartest thing on wheels—the most popular car in the world among physicians, and all other professional and business men—now \$1225.

TO SUPPLY A GROWING DEMAND for an enclosed body on Reo the Fifth chassis, we have planned to build a limited number. The quality will be Reo—which is to say, excellent. The top is rigidly supported at front and rear. Removable glass panels convert it into a veritable limousine for winter and these discarded and with jiffy curtains (which are also furnished) it is an ideal summer touring car. The price is \$1400.

THE NEW REO SIX will continue in its present popular forms—the 7-passenger touring car and the classy 4-passenger roadster; and we will make a limited number with Sedan bodies to supply an insistent demand for this type of body on this splendid chassis.

THE PRICE IS REDUCED \$100 on the 7-passenger and roadster models. Now \$1600.

NOW YOU WONDER, and naturally, how we can reduce the price of the Reo Six models and not the Four—especially after what we have just told you about the increased cost of production.

SEEMS ILLOGICAL at first blush—doesn't it? But it isn't. For the truth is never illogical. And the truth is that despite the present higher prices of materials and labor still it costs us less to make this six-cylinder model than it did a year ago.

THIS POPULAR REO SIX is now in its third season. It has passed the same stages through which its great four-cylinder forerunner went—initial costs have been absorbed, charged off. And, in accordance with that unwavering Reo policy, we give our buyer the benefit and set the price at \$1600, duty paid, f. o. b. Lansing, Michigan.

WE WILL MAKE A LOT MORE of those 4-passenger Six Roadsters the coming season. We underestimated the appeal and the demand for this model. It proved one of the most popular Reos ever built.

THE SIX SEDAN speaks for itself, though, truth to tell, an illustration does it scant justice.

YOU MUST SEE IT where you can study its artistic lines and facilities first to fully appreciate this latest Reo which we price at \$2350.

NOW A WORD ABOUT THE TRUCKS since 90 per cent of all Reo automobile distributors also handle Reo motor trucks.

PRICE OF THE 1500-POUND REO "Speed Wagon" has been reduced to \$1425, duty paid, f. o. b. factory.

SAME REASON—SAME POLICY—reduced cost of manufacture despite higher present cost of materials—as enunciated in speaking of the Reo Six.

AND THAT TWO-TON REO. What shall we say? What need we say? We submit, it is the greatest 2-Ton motor truck in existence. Has been standard for longer. Has given greater proof of its sturdiness and efficiency and low cost of upkeep.

IF WE ARE TO JUDGE by that over-demand, we may well assume that we could sell all that we could make were the price \$500 instead of \$2150.

AND FINALLY A WORD about the big general plan—a brief reiteration of the Reo policy.

WE STILL ADHERE to our determination never to make more Reo cars or trucks than we can make and make every one good.

TEMPTATION IS GREAT of course. Dealers protesting, buyers begging for more Reos. But we know—we know—on what solid foundation this Reo success was built; and we'll jealously guard that policy to the last.

RATHER THAN INCREASE the quantity we shall strive always to improve the quality so that, as the art advances—our cars generally improve, still Reo will continue to be known as—"The Gold Standard of Values."

All prices are, duty paid, f. o. b. Lansing, Michigan

REO MOTOR CAR COMPANY
REO MOTOR TRUCK COMPANY
Factories: Lansing, Mich., U. S. A.





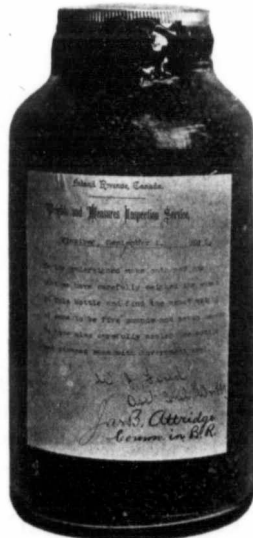
These Three Beautiful Ford Touring Cars GO TO THE WINNERS OF OUR BIG AUTOMOBILE CONTEST

This is the most important announcement ever made in any contest carried on by any farm paper in Canada—the first time three Automobiles have been offered as grand prizes in any competition of this kind. A handsome 1917 Model Ford Touring Car will be presented to the person making the correct or nearest correct estimate in each of the three prairie provinces—Manitoba, Saskatchewan and Alberta, between 15th September, 1916, and April 1st, 1917.

HOW TO WIN AN AUTOMOBILE

We will present a handsome Ford Touring Car (1917 model) to the first reader of The Canadian Thresherman and Farmer, in each of the three prairie provinces, Manitoba, Saskatchewan and Alberta, who estimates nearest to the number of whole kernels in 5 pounds and 7 ounces of No. 1 Northern wheat, between the 15th of September, 1916, and 1st of April, 1917. The wheat is a fair clean sample of No. 1 Northern, grown in Saskatchewan, and weighs 64 pounds to the bushel. It was obtained from the Dominion Grain Inspector at Winnipeg. The wheat and bottle were taken to the Dominion Weights and Measures office, and exactly 5 pounds and 7 ounces were weighed out and poured into same. The bottle was then immediately sealed up in the presence of two witnesses, photographed, and deposited with the Union Trust Company of Winnipeg. It will remain in their vaults until the contest closes, 1st April, 1917, when it will be taken out and counted by a board of 3 judges, none of whom are in any way connected with The Canadian Thresherman and Farmer. The contest is open to every bona fide farmer in Manitoba, Saskatchewan and Alberta, except residents of Winnipeg.

Frank B. Snyder, Elkhorn, Man., won the last competition. On that occasion there were 3½ pounds of wheat in the bottle, which counted 47,037 kernels. Mr. Snyder's estimate was 47,038 kernels. This information ought to help you considerably in the present competition.



This bottle contains 5 pounds and 7 ounces of No. 1 Northern Wheat.

The wheat is a fair clean sample grown in Saskatchewan, and weighs 64 pounds to the bushel.

The photograph shows the actual bottle after it had been weighed and sealed by the Dominion Weights and Measures Inspector.

Can you estimate how many whole grains of wheat there are in the bottle?

HOW TO SEND YOUR ESTIMATES

Everyone who sends us a subscription direct to this office between the dates mentioned, for The Canadian Thresherman and Farmer, either new or renewal, is entitled to estimates as explained below. These estimates may be credited in whatever way you desire, and you may send in as many estimates as you wish in accordance with the schedule below. Remember every additional estimate increases your chance to win a car. Estimate now and increase your chance of winning, because it is the first one in each province who estimates nearest to the number of whole kernels that wins an automobile. Estimates will be accepted as follows:

- 1 year's subscription at \$1.00 gives you 3 estimates
- 2 years' subscription at \$1.50 gives you 7 estimates
- 3 years' subscription at \$2.00 gives you 11 estimates
- 4 years' subscription at \$2.50 gives you 15 estimates
- 5 years' subscription at \$3.00 gives you 19 estimates
- 6 years' subscription at \$3.50 gives you 23 estimates
- 7 years' subscription at \$4.00 gives you 27 estimates
- 8 years' subscription at \$4.50 gives you 31 estimates
- 9 years' subscription at \$5.00 gives you 35 estimates
- 10 years' subscription at \$5.50 gives you 40 estimates

NOTE.—1. Old subscribers sending in new subscriptions for friends are entitled to the additional estimates if they are all sent to us in one envelope.

2.—Every coupon sent in to us will be acknowledged by letter to obviate possible errors. Get all your friends to enter the competition, or better still, make them a present of a subscription and take advantage of the extra estimates yourself.

DO NOT FORGET

Before any one is eligible to compete in the contest, his money must be sent in to the office direct, along with his estimates. Contestants who hand their subscriptions to our agents on the road are not eligible to enter the contest unless they send a further subscription into the office here.

COUPON

E. H. HEATH CO. LIMITED, Winnipeg.

Please find enclosed \$..... for..... years' subscription for **The Canadian Thresherman and Farmer**, to be sent to Name..... Address..... Prov.....

My estimates as to the number of whole kernels in 5 lbs. 7 ozs. of No. 1 Northern Wheat are.....

If more space is required for names and estimates, use a blank sheet and attach securely to this coupon.

CASE GAS TRACTORS

The Sensation at the Tractor Demonstrations

THE work of Case gas and oil tractors at the recent plowing demonstrations was a sensation. It was conclusive evidence that Case tractors today dominate in this field of power. As one of the leading farm authorities and an officer of the Fremont demonstration said, "Case tractors did the finest plowing on the grounds. It was the finest plowing I have ever seen."

Thoughtful Farmers Choosing Case Tractors

Hundreds of thoughtful farmers, men who are using the greatest care in selecting a tractor are choosing Case tractors. They are *insisting on quality*. They are *demanding* a tractor that is *simple, efficient* and one that will do *all around* work. And they are turning to a company that is a *pioneer* in the gas tractor field. Case built the first tractor 24 years ago and since we have experimented at *our own cost*—not at the cost of the customer. Field and factory experience have given us an insight to farm problems. Case engineers have embodied everything that is *practical* in a tractor.

Get All the Facts Before You Buy

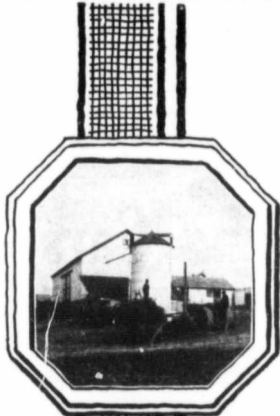
The work of Case tractors in the field is our *strongest* argument in favor of a Case machine. Case users are satisfied users. Before you buy get all the facts. Send for our interesting 96 page catalog on Case machinery. Sent postpaid on request.

J. I. CASE THRESHING MACHINE CO., Inc.

787 LIBERTY ST.

RACINE, WISCONSIN

Canadian Branches: Winnipeg, Toronto, Calgary, Regina and Saskatoon.



CASE GAS TRACTORS

Case Tractors— For All Kinds of Farm Work

THERE is no limit to the usefulness of Case tractors. They are adapted for all around work such as plowing, threshing, discing, cutting silage, operating the baling press, corn sheller, husker-shredder, pulling stumps, hauling, etc. And better still is the fact that Case tractors are built to do this work year after year, season after season.

Many Points of Superiority

You will appreciate the construction details of Case tractors. Their simplicity will appeal to the man who wants to avoid delays when it is necessary to make ordinary adjustments or occasional replacements. For instance, the crank case is so designed that the crank shaft can be removed without touching any vital parts or adjustments. The main bearings are interchangeable, removable die cast babbitt shells, held in place with shims so that the wear on these bearings can be taken up. Crank shafts and gears entirely enclosed but readily accessible. The piston ends of the connecting rods are fitted with special hard bronze bushings and the crank pin end with genuine nickel babbitt shells, bronze backed. The cap on the crank end is provided with metal shims for taking up wear. Crank shaft and crank pin bearings are interchangeable and made of the very highest grade babbitt. Their design permits of being renewed in very short time. Hyatt bearings are used thruout all sizes of Case tractors. *Simplicity is the dominant factor thruout Case machines.*

Investigate For Yourself

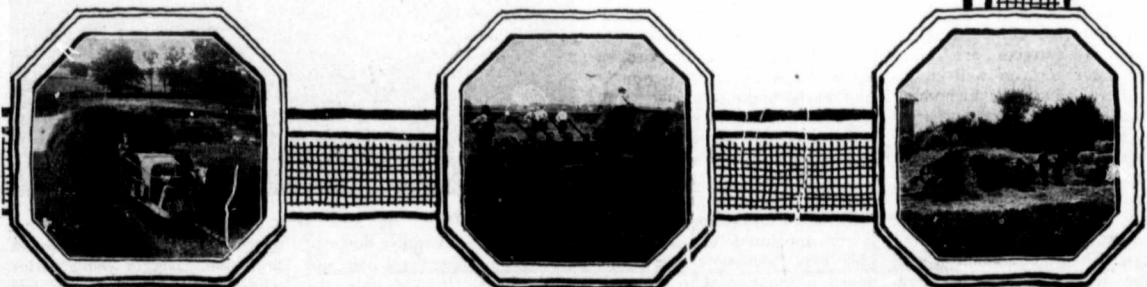
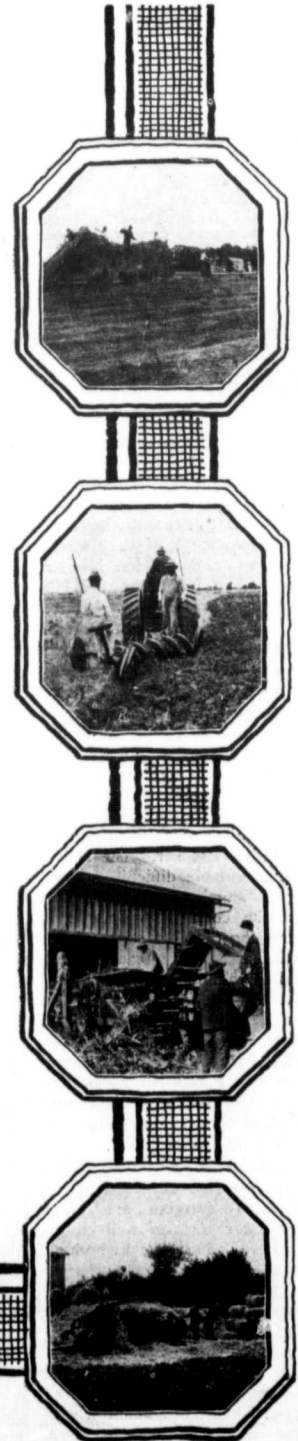
There are many details too numerous to mention in limited space. Those who are interested in getting a *practical* tractor, one that will do the maximum work at a minimum cost *must* investigate Case machines. They are marvels of power and simplicity. Send today for the big Case book which gives complete details. Sent postpaid at your request.

J. I. CASE THRESHING MACHINE CO., Inc.

787 LIBERTY ST.

RACINE, WISCONSIN

Canadian Branches: Winnipeg, Toronto, Calgary, Regina and Saskatoon.



PEACE River valley, the new Mecca of the land seeker, is beginning to write a story which promises to be one of the most wonderful of all Canada's marvellous records in crop raising, stock breeding and probably in mineral development as well.

Not at the behest of any land company but entirely because of its surpassing interest to every

northern latitudes renders vegetation both rapid and luxuriant.

In the Peace River district the seasons change very quickly, so

cultural possibilities of the country in Professor Macoun's official reports, and he summarized his conclusions in his book "Manitoba and the Great Northwest," published in 1882. He defines a tract lying between the upper reaches of Athabasca River and the fifty-seventh parallel of latitude in Peace River basin, which he considers "may be classed as fertile," and estimates its area as about thirty-one thousand five hundred and fifty square miles.

Starting from the Parsnip and through Rocky Mountains, the good country for agriculture commences, at Rocky Mountains portage at Hudson Hope (in British Columbia). From this point down the country is suitable for agricultural purposes, the whole distance, not on the slopes of the river, but on the prairie above. The north bank of the river, that is the one facing south, has hardly any wood, but

banks of the river that were wooded; above, all was prairie, with poplar and willow in clumps. It was of the same character as the North Saskatchewan, but with much taller grass.

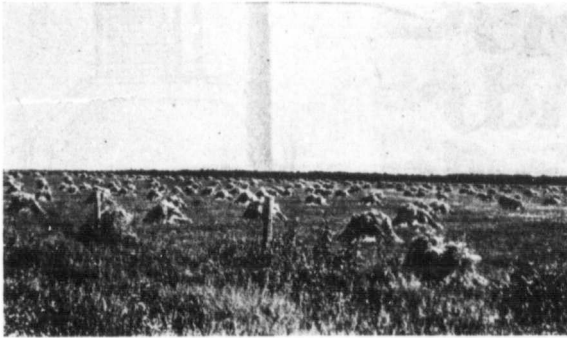
Said Professor Macoun:—"While at Fort Vermilion, on Peace River, in latitude 58 deg. 24 ft., I was informed by old Mr. Shaw, who had charge of that post for fifteen years; that

Indian Corn Would Ripen

well every year there, and at Battle River corn ripened three years in succession, and that frost never injured anything on this part of the river. The whole country at Fort Vermilion is a plain, not elevated at its highest point more than a hundred feet over the river, but the greater part of it is less than fifty feet. The soil is wonderfully like that of the second prairie steppe, in the prairie region, as the surface is composed of black loam, mixed apparently with limestone gravel. From Fort Vermilion, Caribou Mountains are visible about forty miles off. These may have the effect of keeping off the cold winds from Great Slave Lake, and hence the country is permanently warm. Both days and nights have been warm down on this part of the river, whereas on the upper parts, where high banks are, the cold was even felt at night in August.

"The grain at Fort Vermilion was sown on May 8 and 20, and was cut on August 6. Wheat growing among the barley and by the fences was almost ripe August 12, when I was there. At Rocky Mountain portage (British Columbia), where Peace River issues from Rocky Mountains, latitude 56 deg., we found a first rate garden with vegetables far advanced, July 21; new potatoes, onions and carrots were part of our bill of fare. That was in 1875. Five days later, at Fort St. John (B.C.) vegetation was even further advanced, and all kinds of

THE PEACE RIVER COUNTRY—



Field of Grain at Fort Vermilion

one who has the smallest interest in Canadian affairs, the following descriptive facts are offered. They are condensed from more detailed matter recently issued by the Department of the Interior at Ottawa and the Hon. Minister responsible for them will be happy to provide any inquirer with the last bit of authentic information which the want of space alone precludes from this notice.

While a few pioneer settlers have from time to time penetrated this portion of Northern Canada, it has only been within the past few years that it has been possible to regard the Peace River Valley as within the reach of the homeseeker. The almost insurmountable difficulty in taking in supplies and machinery, and the corresponding task of marketing the crop rendered this fertile area of Canada's hinterland a veritable "terra incognita."

While—as has been said—but few have explored this district, many will be surprised to learn that so long ago as 1876, grain from the Peace River captured the trophy in competition with the world at the Centennial Exposition in Philadelphia.

In the book just issued by the Hon. Minister of the Interior, numerous extracts are given from the reports of well known explorers and scientists who have visited the country, dating from the beginning of the last century down to the present day. There is a consensus of opinion among these authorities as to the adaptability of the country to the growth of all grains and root crops. The great amount of sunshine which obtains in these

that as soon as the snow passes, the ground is ready for seeding. The soil in some places consists of a rich black loam. In others

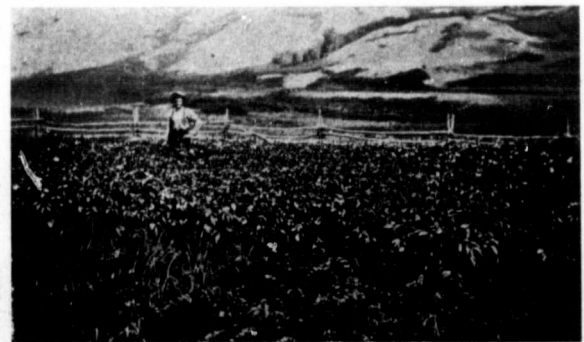


Ploughing at Grande Prairie

it varies from a blue clay with a top soil of sandy loam—from two to six inches—to a sandy loam, much desired by wheat growers. Vegetables attain a large size. During a large part of the winter season cattle and horses may remain outdoors. It is a country adapted both to mixed farming and ranching.

After the very early pioneer efforts in a small way, Professor John Macoun was the first scientific explorer to draw attention to the agricultural possibilities of Peace River country, after making a thorough examination of the natural flora, the soil, climatic conditions, etc. Mr. Macoun had accompanied the first Canadian Pacific Railway survey expedition, and had subsequently been botanist to the geological survey party appointed to investigate this very country. There was much information as to the agri-

is covered with berries, and Dr. Macoun found the cactus growing there. The other side of the river, facing the north, was cov-



Vegetable Garden fifteen miles West of Fort St. John

ered largely with spruce down to the river's edge, the whole upward slope. It was only the

garden stuff were in the greatest profusion. Nigger Dan's barley was coloring on July 26, and

would be cut the first week in August. His potatoes were large, and enough for fourteen men were dug on August 2.

"The wild pea or vetch grows all through Peace River valley, but was particularly noticed on the plateau above Fort St. John (in British Columbia), in latitude 56 deg. Here it was actually measured by myself and was found to attain a height of eight feet, while the weeds, such as the purple fire weed of the east (*Epilobium angustifolium*) attained a height of seven feet. These are given in illustration of the wonderful luxuriance of the commoner plants on that high plateau. The vegetation throughout the whole Peace River valley is of the most luxuriant character, and it seems

More Like that of the Tropics than a country drawing near the Arctic Circle."

Professor Macoun explained that in Peace River country, the snow passes off so easily that as soon as it is off the ground and a few inches of the soil thawed, the ground is ready for seeding, because the soil is friable and the snow of little depth. The character of the month of September is almost identical with that of the very best Septembers in Ottawa—a smoky atmosphere with occasional white frosts in the mornings, but generally a calm atmosphere. In October the frosts get more severe towards the last of the month.

William Ogilvie, D.L.S., writes: "It appears, therefore, that from Dunvegan, on the north side of Peace point, and thence to Salt River on the Slave there is a tract of country about six hundred miles in length and forty miles wide, of which a large percentage is fit for immediate settlement, and a great deal more could be very easily cleared.

"At Dunvegan, notwithstanding the severity of the frosts, the crops were very good, both in quality and quantity. When I was there, the Roman Catholic missionaries

Had Threshed Their Grain, samples of which I brought back. The yield was as follows:—Fifty pounds of wheat were sown on April 16 and reaped on August 20, and twenty-seven bushels threshed of good, clean grain; fifteen pounds of Egyptian barley sown on April 18 and reaped August 20, and fifteen bushels threshed, weighing fully sixty pounds to the bushel. The Hudson's Bay Company and the Church of England mission had not threshed, and could not give their returns, but they were well satisfied with their crops of all

THE LAND-SEEKER'S NEW MECCA

kinds. The Reverend Mr. Brick, Present Agricultural Conditions of the Church of England mission, in the neighborhood of Peace River Landing the farms which



General View of Peace River Landing, the Peace River in the background

when I was there, made from are already in occupation demonstrate beyond any doubt that the growth of the present year's wheat is highly suitable for the



THE PEACE RIVER COUNTRY

production of all classes of cereal and root crops; many farmers in the vicinity of the "Waterhole," about thirty miles from Peace River Landing, have from five hundred to eight hundred acres under cultivation and the land is very highly spoken of. The production of wheat ranges from forty to fifty-five bushels to the acre; oats fifty-five to sixty-five and barley seventy to eighty; corn, tomatoes, squash and citron ripen in the open air very satisfactorily; truck garden produce is very successfully grown in and around Peace River Landing. A large extent of undulating country lying north and west of Peace River Landing is suitable for ranching or stock-raising purposes; there is in all probability five thousand square miles of this class of country. South of the Buffalo Head hills the land is not of such a good quality, being broken up by swamp and sandy ridges, but in the proximity of Carcajou Point, the land is again very fertile and should attract many settlers. Probably the best proof of the fertility of the soil and the ease with which the land can be brought into a productive state is visible at the Fort Vermilion settlement, which is nearly three hundred miles from Peace River Landing; the farms exhibit results of a character which is a striking demonstration of the fertility of the soil in conjunction with careful methods of husbandry. The government experimental farm at this point is a sight that would astonish many of the farmers of the east; wheat of the Red Fife variety was sown here on April 15, 1915, and harvested August 17, having been absolutely untouched by frost; the production per acre amounted to forty-two bushels, height of straw three feet ten inches and length of head four inches. Exceedingly satisfactory results were obtained with the garden and root crops and with the cultivation of alfalfa. There is a large area of land of this description, extending for over eight hundred square miles, in the same locality and still awaiting settlement.

A great expanse of excellent farm land is located between the Birch and Mikkwa Rivers. This land is primarily best suited for stock raising purposes. Large tracts of natural hay meadows, interspersed with rolling bush country, make this section an ideal one for the stock breeder; ample supplies of water exist everywhere and a luxuriant growth of natural grasses, including blue joint, fescue, and meadow grass, together with the wild-pea vine, furnish cattle feed in great abundance.

THE CANADIAN THRESHERMAN AND FARMER
 CANADA'S LEADING AGRICULTURAL MAGAZINE

E. H. HEATH
PRESIDENT

E. W. HAMILTON
MANAGING DIRECTOR

F. C. BRAY
TREASURER



E. H. HEATH COMPANY, Limited
 WINNIPEG, CANADA

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J. L. MIDDLETON
CIRCULATION MANAGER

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Oct.

A REVIVAL

1916

OUR GUARANTEE

No advertisement is allowed in our Columns until we are satisfied that the advertiser is absolutely reliable and that any subscriber can safely do business with him. If any subscriber is defrauded E. H. Heath Co., Ltd., will make good the loss resulting therefrom. If the event takes place within 30 days of date advertisement appeared, and complaint is made to us in writing with proofs, not later than ten days after its occurring, and provided, also, the subscriber in writing to the advertiser, stated that his advertisement was seen in "The Canadian Thresherman and Farmer." Be careful when writing an advertiser to say that you saw the advertisement in "The Canadian Thresherman and Farmer."

THE mean man, it has been said, rarely addresses himself to God unless he is in a hole; and it is in line with historic precedent that when the preachers can no longer endure the staring rebuke of empty pews, they "pool their interests" in a great revival. That things with us are not what they ought to be cannot be denied, and that some quickening of the national life at this time would be a good thing is the burden of many hearts. If any manner of regenerating grape-shot will bring it about, let us up and at it, but having had a somewhat extended experience of these spasmodic quickenings, we would not again pin our faith to much in human effort of the kind on which we had banked in the past.

Of the sensational features in revival procedure that make a strong appeal to the emotions, our feeling is that a heavy discount must be provided for. At the same time we have no part with those who condemn utterly this or any method of waking up a sleeping soul. Billy Sunday, General Booth and the like shall have no discouraging note from us. God bless them all, for they are at least sincere and terribly in earnest. What is more to the purpose—they have a finer "catch" in their baskets than many of the splendidly equipped fellows we had been accustomed to fish with.

It is a humiliating circumstance that the Ministerial Association of Winnipeg should find it necessary to take the initiative in a "revival," and the panic it reveals in our religious "headquarters staff" is a direct indictment of the churches—of the pew no less, and probably far more, than the pulpit. Therefore, in any contemplated movement towards the "deepening of the spiritual life," let us first of all have a clean up in the church. We have, however, long since blotted out that arbitrary line between the church building and the man who either never enters it, or takes his ordinances in homeopathic doses.

It was said of Lord Brougham that he was the most dependable man of his day in the sense that if he undertook to accomplish anything, he could rely on his own continuity of habit to "deliver the goods." Brougham's best friend never would have proclaimed him a saint, and yet he affirmed: "Under God, I owe everything to habit." Well, then, suppose the church seriously tried the effect of a frontal attack upon the habits and disposition of its own flabby membership before sending skirmishing parties into the hedges and highways? Those of us who mastered the shorter catechism of course, know "all about" the statement of the case for

Christian living. Its canons are as familiar as the black letter title of the morning paper, and yet where will one find human nature with the paint off as in the average church court of the city congregation? If "The World for Christ" is the one reason for the church's existence, where do we stand to-day?

As he entered Oxford University to deliver a lecture on the fine arts in Florence, John Ruskin found a little girl on the doorstep, dirty and ragged, and wearing the cast-off shoes of a grown person. He delivered his lecture to a splendid audience, but the thought of that little girl took all the heart out of it. That one little forlorn waif, he thought, challenged the British Empire—and he was right. We renounce that conception of "religious activity" that seeks to out-class everything in sight in splendid architecture, while there is a single hungry, ill-clad creature remaining on the city streets. We no longer take any stock in that post-mortem paradise promised to a fellow mortal who hasn't the means to taste at least a little bit of his heaven here and now. We don't care what form this revival may assume, if it will but incarnate the Living Christ, Who, by the way, rebuked certain teachers of His day who handed out a stone when the people asked for bread. Heaven is a "hazy hallucination" to that one who cannot find a fair portion of it in this fine world of sunshine, with its rainbow promise of unfailing seed-time and harvest. Some of us have, and many have not found it, and the revival that does not compel the full man to pass on a bit to the needy one in this world is a mockery and a sham. Practical Christianity! What is there practical in so-called "believers" whimpering over the future state of their souls, when the Founder of their religion told them in specific words to pray for their daily bread *this day* and to pray for the kingdom to *come on earth* so that things would be as well arranged here as they are beyond the sunset?

A great Canadian church is now making a frantic effort to wipe out a deficit of \$170,000 on its Mission and Social Service account, and there are scores of settlements that have not yet been reached. Many worthy souls cannot honestly contribute a dollar of this, but there is one spiritual banquet-hall of our city that is now paying for *its music alone* what would go far to feed *five settlements*. And one of its members sent in his cheque for a slice of the war loan equal to *three times the whole sum* of the above deficit! If the pillars of the church scarcely are saved, where will the lost lambs of the prairie appear?

SUBSCRIPTION RATES

Postage prepaid, Canada and Great Britain

\$1.00 Per Year. Single copies 15 cents.

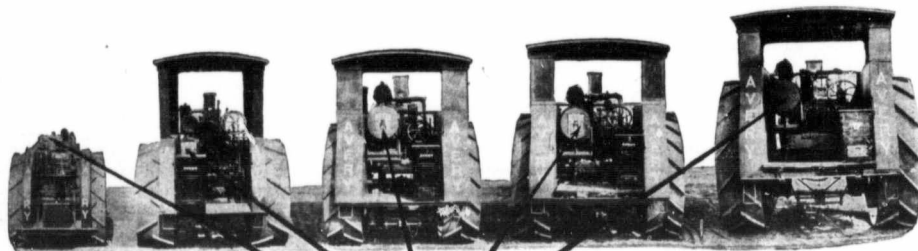
Postage prepaid, United States and Foreign Countries, \$1.50 Per Year.

Failing to receive paper, you should notify the office at once, when mistakes, if any, will be corrected immediately.

All Subscriptions must be paid for in advance and no subscription will be accepted for a shorter period than six months.

Advertising copy in order to secure good position should be in our hands not later than the 15th of the month preceding date of issue.

Advertising rates furnished on application.



Fill These Tanks with KEROSENE

Fill the small tank with gasoline. Pull the switch on the double carburetor to gas. Turn the motor over and when it has warmed up a little, push the switch over to kerosene and you're off.

Avery Tractors burn kerosene regularly. They are equipped with special carburetors of our own design, having a bowl for each fuel and an instantaneous switch for changing from one to the other.

Some companies use a great deal of their advertising space saying that their tractors burn kerosene. But they don't spend much time talking about the design and construction of their tractors. Burning kerosene is important but the design and construction of the tractor in which it is burned is even more important.

Avery Tractors burn kerosene right along. They proved it every day in the eight weeks of the National Tractor Demonstrations. But that's only one of their many points of advantage. Here are some other

important features in the design and construction of Avery Tractors.

Avery Tractors are equipped with renewable inner cylinder walls. They are the only tractors that have them. If a cylinder is injured in any way, simply put in a new inner cylinder wall. You don't have to buy the complete new cylinder. It's also made of harder iron so that it wears longer.

Avery Tractors are the only make having a sliding frame. This is a patented Avery feature. This sliding frame makes it possible to eliminate the intermediate gear, shaft and bearings and is the reason why an Avery Tractor has the least gears, the least shafts and the least bearings of any two-speed double drive tractors built.

Avery Tractors have no fan, no water pump, no fuel pump, no outside lubricator, no counterweights on the crankshaft, no belts, no sprocket chains. They are free from all these parts which are so often troublemakers.

PEDIGREED AND GUARANTEED.

There's a strong company behind an Avery Tractor. A company having a large factory and many branch houses with trained service men and repair stocks at each house. When you get an Avery you get a machine that has an improved design, is well built and is backed by prompt and permanent service after you get it.

Get ALL the Facts. Write for complete catalog or call on nearest Avery Agent or Branch House.

AVERY COMPANY Canadian Avery Co. Ltd.
685 Iowa St., Peoria, Ill.

Western Canadian Distributors WINNIPEG, REGINA

AVERY

Important Points to Consider in Buying a Tractor

The Increasing Demand for More Farm Power and How the Tractor is Meeting this Need.

By FRANK M. WHITE,
University of Wisconsin.

TEN years ago the majority of us did not think much about the sort of power that was being used upon the farm or about the amount of it required to do a certain piece of work. We knew, in a general way, that it took four good work horses to pull a 12-inch gang plow. We knew that these same horses had comparatively little to do throughout the remainder of the season and that they were "eating their heads off" in the winter time. We also knew that about half of the number of horses required for spring's work could do the necessary farm work throughout the rest of the season.

Until the last few years the horse has furnished all the power available for farm purposes. The introduction of the gasoline engine and its application to small farm jobs brought out first the idea of advocating mechanical power. Then the rapid development of the great western and northwestern farming districts demanded more power and the steam engine was first pressed into service on these farms. The thresherman owning his own engine soon found that there were uses for it aside from threshing. So the steam engine was the first tractor to be used on the farm. The manufacturer was quick to realize that the steam engine as ordinarily constructed for threshing was not adapted to the pulling of plows, discing, sowing and harvesting. These first tractors were of a common type of threshing engine with extra heavy gears and axles, and were but little improvement over the steam engine as used for belt power. The rapid introduction of the gasoline engine has given us a power that is competing with the horse as a farm motor.

Before considering the power to use let us get clearly in mind the present situation and see the various farm operations that require any considerable amount of power and something concerning the actual conditions which exist on the farm at the present time.

Plowing, perhaps, requires the most power and at the same time is easily adapted to any type of motor. Sowing and harvesting of small grains requires considerable power, and it is also comparatively easy to apply any type of motor. Plowing corn, drilling, corn planting, running the smoothing harrow, hauling manure and making hay, are hardly tractor jobs. There are

other operations on the average farm to which the horse motor will not be applicable, such as sawing wood, filling the silo, baling hay, shelling corn or running the threshing machine.

Two questions naturally present themselves in the consideration of equipping our farms with the necessary amount of power, or a more economical power: (1) Is the horse the best form of motive power and is he too expensive a proposition to maintain during the idle season? (2) Can a mechanical power really be developed that will take the place of the horse? Or, is it necessary for a mechanical power to replace the horse in order to be economic power? Before considering the first question let us get a clear idea of what a horse is and of what a horse can do.

A horse viewed from the standpoint of a machine is a wonderful mechanism. He is self-feeding, self-controlling, self-reproducing. He is far more economical in developing energy from a given amount of fuel material than any other existing form of motor.

In other words, a much smaller proportion of the fuel value put into a horse is lost in the form of heat when work is being done than in other forms of motor.

The horse as a motor consists: (1) a system of rigid levers; (2) a system of muscles; (3) a fuel-supply and waste-removing system; (4) a regulating mechanism consisting of a nervous system; (5) a protecting and insulating system which keeps all the working parts free from dust and reduces the waste of heat. In order to build a mechanical power these five elements which con-

stitute a horse are just as essential.

Now, as to what the horse can do: He is a motor capable of developing a certain amount of power for a reasonable length of time. He can, under certain conditions develop a much greater amount of power for a short time. For example, in doing heavy work in the field, like plowing, he can maintain a speed of $1\frac{1}{4}$ miles to three miles per hour for an eight-hour day. The same horse can be put on a heavy load on a road and travel at a rate of three to five miles per hour. Will it be possible to develop a power equally as flexible so far as speed is concerned? If we are trying to design a machine which will take the place of a horse we ought to give very careful consideration to the actual work that a horse can do and to his flexibility.

All farm machines of to-day are designed to be drawn by the horse. Is it possible to apply mechanical power to machines already designed to be drawn by horse power? Or will it be necessary to develop new machines especially adapted for mechanical power?

Now, as to the adaptability of the tractor as a motive power for the farmer: First, we will have to admit that it is successful for pulling plows under good plowing conditions. But there are plowing conditions in the various states which would not warrant the purchase of a tractor in any case, or possibly only a certain type of tractor. These are the three conditions which I wish to mention: Stony ground, hilly farms and marsh lands.

Some tractor salesmen make the statement to prospective buyers that stony ground need not be considered a serious drawback to the purchase of a tractor on account of the fact that a brake-pin type of plow-bottom prevents any serious injury to the plow on striking a stone. However, I have seen attempts made to operate a tractor on stony ground when more time was spent in putting in brake pins than could possibly be saved by the use of the tractor.

I have seen cases of hilly ground in which the tractor could not pull a single plow set to run only four inches deep up a hill. While running the tractor parallel to the hill the engine was constantly slipping down into the furrow, causing so much trouble and doing so poor a job of the plowing that the tractor was entirely out of the question. A light weight tractor, such as many concerns are building at the present time, would give better satisfaction under these conditions.

In regard to plowing, I have known a tractor to go where a horse could not go in marsh lands, but it was found that it cost too much to get the tractor out of a hole even if it only went down once a day. In other words, the tractor under these three conditions, stony ground, hilly and marsh lands, has not been able to compete with the horse. It is true, of course, that these three conditions are in limited areas only, but they should be considered when the problem of selecting a tractor arises.

The average cost of keeping a horse per year in the grain-growing sections, as published in a bulletin issued by the U.S. Department of Agriculture, is \$65.23 on a farm of 1,000 acres. On a farm averaging 375 acres the cost is \$75.07, while for a smaller farmer it would be around \$80.

In considering the cost of the tractor on a farm it is necessary to consider the items of operation efficiency, upkeep cost, and possible length of service. Under the cost of operation we should make no charges against the tractor for labor in the field, as we have not considered the cost of the labor required to handle the horse while working. Technically speaking, the cost of operation should be compared on the basis of the cost of developing a certain amount of power per horse power hour. The power requirements of our farm operations are not

IMPORTANT

McBean Bros. Advice on Low Grade Wheat

As there is a large quantity of No. 6 and feed wheat grown this year, we feel it our duty to warn the farmers before selling this low grade grain to seed samples and have it graded, as very often wheat that you might think is feed will grade as high as No. 5 and No. 4, and you also want to get the exact value before selling on street or track. It is very important that you follow out these instructions this year. The demand is enormous for all our grain and will continue until another crop is harvested, and we wish to reiterate to you strongly, get into the habit of shipping your own grain, especially this year. It will mean big money to you. Do not sell on any break in prices, as these breaks are engineered. It is not going to be a question of price this year, but where the wheat is going to come from the supply the demand. The trade has not yet realized the great shortage all over the world.

We figure our oats are entirely too low and should be 15c. to 20c. per bushel higher, compared with other grains, and we strongly advise farmers not to be in any hurry in selling their oats. We also figure that flax will advance to \$3.00 per bushel before another crop is harvested.

We are Commission Merchants and would like a share of your grain this year. Give us a trial, ship your grain to Fort William or Port Arthur; advise McBean Bros., Winnipeg, Man., so that we can look after the grading. We make big advances on each ear of grain. Write us any time for market information.

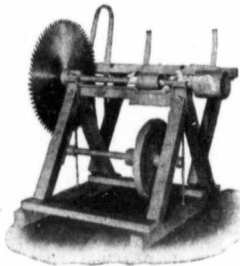
McBEAN BROS.

Grain Exchange

Winnipeg, Man.

Sept. 28th, 1916.

All Lines Shown Manufactured from the Raw Materials to the Finished Product in our own Works at Brandon



The Most Solid Saw Frame sold in Western Canada. Study the illustration and satisfy yourself.

Cordwood Frame only:—
 Brandon **\$18.00**
 Calgary **21.50**
Polewood Frame only:—
 Brandon **\$22.50**
 Calgary **27.00**
Steel Frame throughout, but otherwise similar in design:—
 Cordwood Frame only ^{Brandon Calgary} **\$27.00 \$30.00**
 Polewood Frame only **\$35.50 \$37.25**

24-inch saw **\$5.50 \$5.75**
 26-inch saw **6.50 6.75**
 28-inch saw **7.00 7.35**
 30-inch saw **8.00 8.50**

Add price of saw to frame to arrive at price of complete outfit.

4-foot 1 1/2-inch arbor, with 100-pound balance wheel, pulley, flat boxes and saw collars for making up your own frame:—
 Brandon **\$13.00** Calgary **\$15.00**

GRINDERS

	Brandon	Calgary
8-inch Grinder.....	\$29.00	\$32.00
10-inch Grinder.....	34.00	37.50
12-inch Grinder.....	42.50	47.00

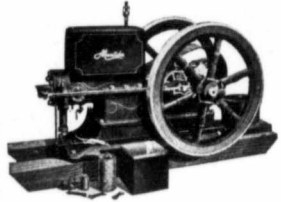
Can also furnish 7-inch straight face Grinder:—
 Brandon **\$27.00** Calgary **\$30.00**



Illustrating our Popular Line of Engines for grinding and wood sawing: 7 h.p., 9 h.p., 12 h.p., and 14 h.p. with battery or oscillator magneto, plain or clutch pulley.

We recommend the following Grinding Outfits:—

7 h.p., with 8-inch grinder and belt:
 Brandon **\$220.00**
 Calgary **240.00**
 9 h.p., with 10-inch grinder and belt:
 Brandon **\$260.00**
 Calgary **285.00**



12 h.p., with 12-inch grinder and belt:
 Brandon **\$375.00** Calgary **\$400.00**
 14 h.p., with 12-inch grinder and belt:
 Brandon **\$425.00** Calgary **\$455.00**

Add \$20.00 extra for Magneto, and \$20.00 extra for Clutch.

Without weight one cannot expect long service and lasting power:

7 h.p. 1800 lbs. 9 h.p. 2000 lbs.
 12 h.p. 2400 lbs. 14 h.p. 2600 lbs.

GRINDERS

Furnished in conical burr type only. 8-inch, 10-inch or 12-inch. Floor or low down styles. All grinders have reversible plates.

12-inch Grinder regularly furnished with 8-inch face, 5-inch diameter pulley. 8-inch and 10-inch grinders, with 7-inch face, 6-inch diameter pulley. Extra set of burrs sent with each crusher.

MANITOBA ENGINES LIMITED, Brandon, Man. & Calgary, Alta.

definitely enough known that we can carry out this basis of comparison.

In the motor contests which were held at Winnipeg a considerable amount of data has been secured on the amount of fuel consumed per brake horse power hour. A fair average of the results secured from these tests indicates that from about three-quarters of a pound to one pound of gasoline per b.h.p. hour is required. From this data I find that it costs about 4.4 per cent to develop one drawbar horse power hour, which includes items of fuel, water and oil. A small 16 horse power engine at this rate developing about three-quarters of its rated horse power, which is probably the most economical load for ten hours per day, should cost about \$2.64, or for fifty days' work the fuel, oil and water should cost about \$132. A 12.25 horse power engine would cost about \$3.50 per day, or \$175 per year of 50 days' work.

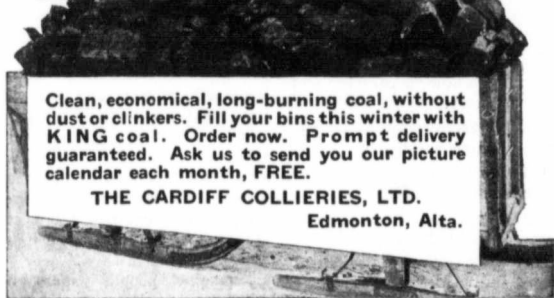
Figures for road work are very much higher. As shown in the report of two years ago from all county highway engineers using gas engines in Wisconsin, the average cost of operating slightly larger engines was \$10.28 per day.

The average annual cost of repairs also reported for gas en-

gines in use in Wisconsin highway work, where, perhaps, the most accurate record has been kept, for 57 gasoline tractors was found to be \$12.11. The average yearly depreciation on these 57 tractor engines was \$259, on an investment averaging \$2,000. The average life of these tractors was estimated at an average of eight years by the various highway commissioners. The depreciation on smaller machines would be proportionate to price of larger machines, or \$125 on an investment of \$1,000, or \$175 on an investment of \$1,400. Adding these charges, which include as before mentioned, the cost of operation, upkeep and depreciation, interest and taxes amounting to 8 per cent, we find that a tractor engine of from 16 to 25 b.h.p. would cost per year from \$396 to \$462. The cost given for maintaining horses was \$80 per year. A tractor, then, costing \$1,000 can, so far as cost of operation, up-keep, depreciation and interest on investment are concerned, be run at the cost of maintaining 4.4 horses. From a standpoint of figures alone, the tractor looks reasonable.

Of course, the more days a tractor can be used, the more profit it will return to the owner. However, it is not advisable for the average farmer owning a gas

Cardiff KING Coal



Clean, economical, long-burning coal, without dust or clinkers. Fill your bins this winter with KING coal. Order now. Prompt delivery guaranteed. Ask us to send you our picture calendar each month, FREE.

THE CARDIFF COLLIERIES, LTD.
 Edmonton, Alta.

Plow Shares

Guaranteed Plow Shares—Prices subject to change without notice.

12 inch, each	\$2.10	14 inch, each	\$2.40	16 inch, each	\$2.70
13 inch, each	2.40	15 inch, each	2.70	18 inch, each	3.00

Give numbers and letters stamped on share and name of plow.
Stover Power Washing Machine - \$22.00

Our complete Power Washing Outfit, consisting of 1 1/2 H.P. Engine, Washing Machine and Belt. **\$60.50 \$38.50**

Write us about these supplies or any others you may see

Write for Our Beautifully Illustrated Catalogue—just out—it's free for the asking.

THE CANADIAN STOVER GASOLINE ENGINE CO. Ltd., BRANDON, MAN.

Twelve Months of this Magazine for \$1.00



GASOLINE IS GOING UP!
THAT IS WHY YOU SHOULD BE INTERESTED IN
THE
“WATERLOO BOY”
Kerosene One-Man Tractor

Weight only 4,800 lbs.
 Brake Test, 24 h.p.; Draw Bar, 12 h.p.
 It is a Kerosene Tractor, built especially to operate on the heavier fuel.
 It has twin cylinders, cast on bloc.
 Ignition—High Tension Dixie Magneto with Impulse Starter.
 It has a Cooling System of the most approved type.
 When plowing, is Self-Steering, and will turn in a 25-ft. radius.
 Easy to operate—Economical on fuel.
 All working parts are very accessible and easily kept in perfect adjustment.
 Transmission—Sliding Gear, with Shifts for one speed forward and one reverse.

Gasoline at the end of January, 1916, was 31¢ per gallon. The price of gas is soaring all the time. It is highly probable that it will touch the 50¢ per gallon mark before the end of the year, and at a time when you will want it most. When you buy a tractor you need to figure out the cost of operation. Fuel should be one of the chief determining factors. The initial cost of the tractor itself is but a minor consideration. With the positive advance of gasoline, farmers will naturally turn to a low-grade oil as a substitute. The Waterloo Boy One-Man Tractor which is specially constructed to operate on low-grade oil, will give gallon for gallon equal and even greater efficiency at a consequent lower cost per acre. It should not be overlooked that The Waterloo Boy is a Kerosene One-Man Tractor, and we guarantee it to fulfill every requirement we claim for it.

The Waterloo Boy will pull a light engine gang with three 14-inch plows in stubble any depth you wish. It will pull two 14-inch plows in any prairie breaking. On your summer fallow it will handle a disc with harrows behind at from 2 1/2 to 3 miles per hour. It will drive a 24-46 thrasher with all attachments at a capacity of 700 bushels of wheat to 1,400 bushels of oats per day. The Waterloo Boy performs this work with efficiency, economy and durability. All in all it is Special Value. Under the circumstances it will pay you to obtain information, price, etc. Mailed free. Write us today. We also handle Gas Engines, Grain Grinders, Cordwood and Pole Saws, Electric Lighting Machinery, Hand and Power Washing Machines, Grain Elevators, Pump Jacks, Small Threshing Machinery, Belting and Threshers Supplies. Live Dealers wanted in Territory where we are not represented.

The Gasoline Engine and Supply Co. Limited **104 Princess Street, Winnipeg**

tractor to depend upon outside work for his profit. It has been found in certain sections of the country that where the owner thinks this outside work necessary that he neglects his own farming. Such cases have become so serious that bankers refuse to loan money for the purchase of a machine.

Judging from the work which a tractor will do, success depends largely upon the education of its operator. Although we will undoubtedly see many decided changes in tractor design, I believe that if the proper attention is given to its selection and the local problem, the right tractor can now be found for the man who knows how to care for and use machinery.

Before purchasing a tractor ask yourself these questions:

- (1) Can the tractor replace the work of four horses?
- (2) Can I use the tractor 50 days in the year?
- (3) What additional equipment must I buy before the tractor can be used the greatest number of days?
- (4) Am I a success in handling machinery?
- (5) Is, or can my farm be panned to conserve time on operating my tractor?
- (6) Is my land too stony, too marshy, or too hilly? Then buy, if you decide you can use more power, a tested machine built by some firm that seems to be operating on a substantial basis and that is permanently established in business.

Twelve Months of this Magazine for \$1.00

THE DAY'S WORK AND THE OUTPUT

Professor L. P. Jacks expresses the belief that at some future day—perhaps after the coming period of economic high pressure—a Labour Party will come into being whose motto will be that “every man shall enjoy the day’s work and a good article come out at the end of it.”

“All classes will belong to that Labour Party,” he writes in the Daily News. “It will be an age of intense competition; but instead of competing to produce the ‘most,’ as we do now, we shall then compete to produce the ‘best,’ and be united accordingly. Quality will displace quantity as the ideal of civilization. Work itself will improve, and men will improve with it—the only way. But I doubt if we shall ever learn to improve our work unless we also learn to improve our pleasures. It is round our pleasures that most of our bad habits are gathered. And the war is helping us to break them.

“Imagine people eager and willing to work to the limit of their physical energies, in order to retrieve the losses of the war, trade unions adopting a policy to that effect; and can we doubt that the losses would soon be made good? A similar result would follow if without any actual increase of the hours of work there were a general understanding that every worker made the most of his time, ‘putting his back into it,’ as we say, and leaving as little as possible to be done to-morrow, or done by somebody else. Add to this a general resolution to make the work done as thorough as possible, and not only would there be direct economic gain on an enormous scale, but a vast



Big Ben
 A Westclox Alarm
 3 a.m.—
 He Flags the Sleeper

At three-fifteen the call boy comes, to wake the railroad man. Big Ben was on the job first. He started the day at three.

The railroad boys all like Big Ben. He helps them make the grade. He calls “All aboard!”—they’re out of bed—plenty of time and a grin—signals set against a grouch—all cheery clear ahead.

Big Ben will run your day on schedule time.

You’ll like Big Ben face to face—Seven inches tall, spunky, neighborly—down-right good.

Big Ben is six times factory tested. At your dealer’s \$2.50 in the States, \$3.00 in Canada. Sent prepaid on receipt of price if your dealer doesn’t stock him.

Westclox folk build more than three million alarms a year—and build them well. All wheels are assembled by a special process—patented, of course. Result—accuracy, less friction, long life.

La Salle, Ill., U. S. A. **Western Clock Co.** *Makers of Wonders*
 Other Wonders: Baby Ben, Point Ben, America, Rings, Sleep-Mate, Lookout and Ironclad.

Family Group Photos a Specialty
 AT
STEELE & CO., Limited
 MAIN ST. and BANNERMAN AVE. WINNIPEG

army of foremen, overseers, and others now employed in preventing the unproductiveness of others might themselves become productive.

“Until all classes have learnt to make a better use of their leisure, or, rather, of their time, than they

were making before the war, I am inclined to think that a period, not necessarily a long one, of Egyptian toil would be for our moral good. Many, of course, were already working up to the limits of their working powers, and for them exception must be

made; but the community as a whole was not so doing—far from it. All classes in the community were becoming the victims of habits of one kind or another which, from the social point of view, are thoroughly bad, and I for one, though nobody believes less in mere industrialism, would welcome almost any change, even ten years of unremitting toil on the economic treadmill for everybody, if only it enabled us to break those habits. For until they are broken we shall remain between the devil and the deep sea. The devil is economic slavery. The deep sea is a life of playing the fool. On the whole, I prefer the devil—at least for a time."

WHEN NOT TO PLOW

By F. E. Ellis

The perfection of the riding cultivator and the disk or double disk harrows as cultivating implements have made plowing unprofitable in many places where it was once thought necessary. Plowing, at best, is slow work and where it can be avoided in these days of labor scarcity even our prejudices should not keep us between the plow handles any more than is necessary.

I question if it is ever profitable, in a normal season, to plow corn and root ground. Last spring was an exception. The damp fall, with one heavy rain after another, beat down the land so hard that plowing may have been advisable in many cases. Even this spring, however, we did not plow a field of light loam that had been in corn and potatoes in 1915 and the crop on the disked soil was quite satisfactory.

Our practice is to run the plow lightly under each row of corn stubble, exposing the roots to the atmosphere. The next spring the land is disked thoroughly and seeded. Root ground is usually not touched at all in the fall and disked in the spring. Perhaps it would be advisable to run root land up in ridges in the fall with a double-mould-board plow and smooth down with the harrows in the spring. This practice does not take as much labor as plowing and the land is more thoroughly exposed to the section of winters frosts. At the same time the ridges dry out more quickly in the spring and a dry warm seed bed is obtainable a week to 10 days earlier than it would be were the ridging omitted.

When the Light Came

It was Henry Glendinning, veteran institute lecturer and pioneer apostle of alfalfa growing in Canada, who first "put me wise" to the fact that good crops can be grown without plowing the ground in preparation. We

were sitting in Mr. Glendinning's well filled library on the occasion of one of my visits to my old friend when he told me of the first time that he omitted the usual plowing of the corn ground.

"I had half finished plowing the big field next the road," said he, "and as I followed the furrows I had been musing on the probable effects of such plowing and wondering why disking alone would not be equally effective. I stopped plowing and got on the disk. I disked in a hurry. I was afraid some of my neighbors passing by would see me and report around that Henry Glendinning was too lazy to plow his corn ground. They were as busy as I, however, and I got the crop in unnoticed. Later in the season I took a neighbor out to that same field and stood him by a post which marked the line between the two methods of soil preparation. I asked him which he considered the better growth. He pointed without hesitation to the oats on the land disked only. In fact there was no room for doubt."

Mr. Glendinning has omitted plowing his corn ground ever since. He does not disk in a hurry now; his neighbors are not so critical of this form of laziness as they themselves have fallen into line. Of course, the method applies only where the corn has been kept reasonably clean and well scuffled. Not the least of its advantages is that the seed bed of the following year will be free from weed seeds.



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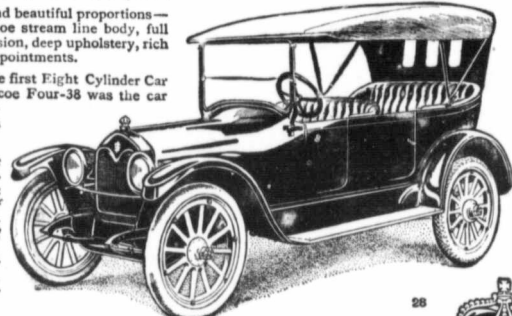
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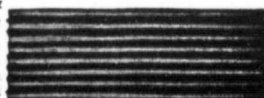
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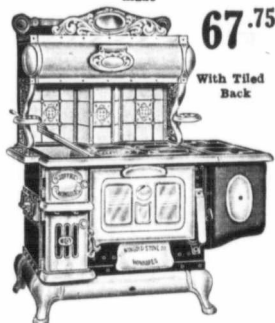
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Good plowing is as important an art as ever it was and the best plowman is yet apt to be the best farmer. But there are certain times when even good farmers do not plow where their fathers did.

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It shows the newest designs, special sanitary features, White Enamelled Splasher Backs and Oven Door Panels. Scores of other conveniences. Highest quality—Lowest Wholesale to Consumer Prices.

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The Biggest and Best Polished Steel Range made



Send your name and address for your free copy of the Blue Book

The Wingold Stove Co. Ltd., 161-3 Market St. WINNIPEG

The Alternative

It is not only the poor who have to retrench now-a-days. A banker's daughter said to him a few days ago:

"Father, dear, I need a new riding habit."

"Can't afford it," the banker growled.

"But, father, what am I to do without a riding habit?"

"Get the walking habit."

MOTOR OR BUCKBOARD

By the Contest Manager
"Opportunity," says Mr. Dooly, "knocks at iv'ry man's dure wanst. On some men's dures it hammers till it breaks down th' dure, an' then it goes in an' wakes him up if he's asleep, an' afterwards it worruks fr him as a night-watchman. On some men's dures it knocks an' runs away, an' on th' dures iv some men it knocks an' whin they come out it hits thim over th' head with an axe. But iv'ryman has an opportunity."

Mr. Dooly was right when he said that everyone had an opportunity. If you will turn to page 3 of this issue you will notice we are giving every farmer in this western country an opportunity to enter as unique a competition as we have ever seen. Just stop a minute and figure what it means to you to be one of the winners in our big automobile contest.

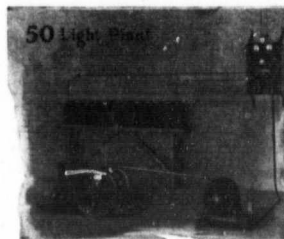
You get a splendid Ford Touring Car—a new 1917 model, right from the factory, ready to use the very next week after the contest closes.

Mr. Snyder, of Elkhorn, Manitoba, the winner in our last competition, writes: "I have enjoyed many a run in the evening since getting my car. It is particularly convenient to take a trip to town to do the week's shopping, after having put in a hard day's work in the fields with the horses, and, needless to say, the horses were home in the stables. I feel well repaid for entering your contest. There is no comparison between buckboard and motor, and I am glad to say my car is often enjoyed by neighbors who have not yet got an automobile."

Transportation is a big word and also a big problem to every farmer. The average farmer has a considerable amount of travelling to do on the road, either hauling farm products to town, or driving on business or otherwise, and that is the chief reason. The Canadian Thresherman and Farmer is giving away three Ford

Before Winter Comes Install a Fairbanks-Morse Electric Light Plant

It would be impossible to get a greater convenience on a farm than an abundance of electric light. The cost of installation is not so much as you would imagine. See the few parts necessary in a complete outfit as shown in the illustration. It is usually only necessary to run the engine once or twice a week to charge the battery and you have all the light you can use.



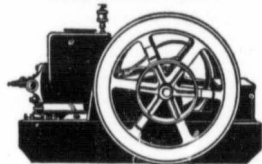
CAPACITY
in 18 candle power lamps, containing 20 watts each.
50 lights for 5 hours
Dynamo running and Battery fully charged, or
20 lights for 5 hours
or
13 lights for 8 hours
Battery only (when fully charged), or
30 lights as long as you want them
Dynamo running and Battery floating.

If your battery is run down you can run the lights from the dynamo and charge the battery at the same time. This is one of the most complete plants on the market.

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Sirs: Send me your Catalogue of Dreadnaught Engine and your Best-in-the-West Engine proposition.

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We want to keep you posted on the highest market prices which we pay for goods.

Poultry and Hide Department—We handle and pay cash for Hides, Furs, Butter, Eggs, Chickens and Turkeys.

Junk Department—We pay cash for Old Brass, Copper, Lead, Aluminium, Rubber, Boots and Shoes, Auto Tires, Radiators and Rags. We pay the freight on shipments of 300 lbs. or over.

THOMPSON COMMISSION CO., 316-18-20 Hargrave St., Winnipeg, Man.



Frank B. Snyder of Elkhorn, Man., with his wife and family in the handsome car he won in our last Wheat Estimating Contest

Touring Cars as a token of goodwill to its subscribers in place of presenting a lot of small premiums to its readers when renewing their subscriptions.

The basis of the competition is surely one that cannot be criticized on the point of fairness if not actual generosity. One dollar entitles you to a subscription for twelve months and three estim-

ates as to the number of kernels in the glass bottle—three distinct chances of winning a car, and of course the more estimates you send in the better will be your chance of being successful.

Now is the time to enter the competition. Get your estimates in early. Big opportunities are few — this is yours—can you justly pass it up?



MAJOR A. F. MANTLE
"Killed in Action"

With deep sorrow and regret we have to record the passing of one of the very best and bravest of Canadian manhood — our friend, Frank Mantle, some years ago a fellow journalist and later Saskatchewan's Deputy Minister of Agriculture.

The simple biographic details of this wonderful life of fidelity to principle and splendid effort are already familiar to most of our readers. When Germany invaded Belgium we know what feelings took possession of our friend, and that he was prepared to make the supreme sacrifice, if need be, was in line with everything we had expected of him.

We cannot differentiate in appraising the value of those magnificent men who are giving their lives in these days on the field of battle, but not a living soul who knew anything of him would seek to belittle the plain statement that Frank Mantle, as he was known to us in civil life stood well above the rank and file in character, capacity and in an engaging disposition that never varied.

His loss at this time is something that the province could ill afford, but our hearts go out to the little home circle, to his revered mother and to his sister and brothers. But what a heritage do they not possess in every memory of that splendid husband and father, son and brother!

As another who also knew and loved him has well said: "All who knew him intimately had for him not only respect, but a deep personal affection." That is peculiarly our feeling, and we could not say less of this noble soul than Richard Baxter said of his friend Hampden—that one of the sweetest anticipations of heaven to him was the prospect of re-joining the companionship of his friend.

"GAME BIRDS," TESTED FIGHTERS, BUT NOT FOR SHOW

"I bet you \$5 that's a turkey, not a chicken," said a visitor at a recent agricultural show.

The bird in dispute was a chicken fattened and dressed by "disabled" soldiers at one of the convalescent institutions of the Military Hospitals Commission. All sorts of occupations are provided at these places, and do much to hasten the men's recovery as well as to make them more capable of earning a good living when they come out.

"Why don't you show some of your live birds?" asked another visitor. "Haven't you got any good game birds?"

"Yes," said one of the staff, "we have some very fine specimens; first class fighters, too, as they proved in France and Flanders. But they don't crow or flap their wings about it, and they don't want to be put on exhibition. All they want is a chance to get back among their fellow-citizens and earn a decent living. That's what we are helping them to do. Have you got a few jobs to offer them when they come out?"

Have YOU?

MARKETING POULTRY

A large number of our readers are top-notch poultry breeders. They have all the experience and the taste that breeds enthusiasm in rearing hens and geese, ducks and turkeys, but they fall down just at the point where it is easily possible to make or to lose money in marketing the "goods" they have produced after infinite care and at no little expense.

Most farmers have not the time, still less have their wives the leisure to peddle around this side line from one market to another, and they fear to take the risk of committing them to a distant salesman of whom they know little or nothing.

On this page will be found the announcement of the Golden Star Fruit and Produce Company, Winnipeg, who are making a strong appeal to the West for all the live poultry they can purchase. They guarantee the very best prices and to make instant payment on receipt of shipment. We are glad to speak in the highest terms as to the integrity and financial strength of this company and take it upon ourselves to say that any of our readers having live poultry to dispose of may rest assured of perfect satisfaction in any dealings they may have with these correspondents.

BIG MONEY

— FOR —

LIVE POULTRY

If you would secure the highest price and instant payment for your Chickens, Hens, Roosters, Turkeys, Ducks and Geese—
Ship them to us at once.

THIS PAPER GIVES ITS PERSONAL GUARANTEE
ON OUR BEHALF AS ON PAGE EIGHT
OF THIS ISSUE

	Per lb.		Per lb.
Turkeys (any age 7-lbs. up)	19c.	Chickens (1916 hatch)....	16c.
Hens (any age, any size)	12½c.	Ducks.....	13c.
Roosters (any age, any size)	10c.	Geese.....	13c.

Honest Weight—Prompt Returns—Absolute Security

These prices are guaranteed for 10 days from date of this paper and are for live weight delivered Winnipeg.

Write us to-day for crates or ask your station agent for full information regarding crate requirements then make crates yourself—Save time in shipping and crate charges out.

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C. S. JUDSON CO. Limited, WINNIPEG

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TO
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It is the most complete Catalog of its kind ever published in Canada. It is a guide book and an encyclopedia on the lines listed. The quality of every item is the best and all our goods carry a liberal guarantee. The prices are the lowest being quoted to-day.

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TO-DAY

Simply write us, giving your name and address and also the names and addresses of your friends. The Catalog will reach you by the next mail.

C. S. JUDSON CO. Limited, WINNIPEG

The Answer

Father, teaching his six-year-old son arithmetic by giving a problem to his wife, begs his son to listen:

Father: "Mother, if you had a dollar and I gave you five more, what would you have?"

Mother (replying absently): "Hysterics."



WHO ARE CANADIANS?

The census man came to my door a short time ago and I noticed two rather remarkable things about his method of taking the census.

In the first place he would not call me a Canadian although I was born in Canada and my parents were born in Canada. No! It seems that it takes more than that to make a Canadian. He insisted that I must tell him where my parents were born, and when I had to confess that they too were born in Canada, he went back to my grandparents and then made me a hyphenated Canadian because my grandfather was born across the water.

I know one case of a woman whose grandparents were born in Canada, and despite the fact that she insisted that she was a Canadian and nothing else, the census man insisted on going back to her great-grandparents and made her a hyphenated Canadian because of that old man so long dead.

I understand that the French and the Indians are the only inhabitants of Canada who are allowed by the census man to call themselves Canadians, without tracing down their great-great-grandparents; and yet we are constantly talking about making Canadians of the new settlers, and the melting pot, and all these high-falloon theories.

It reminds me of a story Mr. Woodsworth tells about an experience he had while at All Peoples mission. I have told it before, but it fits in here. The census man down there was from some place in Europe and he asked Mr. Woodsworth his nationality. Mr. Woodsworth squared his shoulders and with some pride said that he was a Canadian. "A Canadian!" the census man said. "Not many of them in this country."

Another thing about the way the census is taken is the fact that the work of the married woman in the home is not recognized as an occupation. When we were taking our petitions around for the suffrage cause we found out how bitterly many married women feel on this subject. Many women when asked their occupation said "servant" or "slave," or "nothing." The census man does not bother asking a married woman her occupation. In fact, he has no place to put it down. Being married appears to be all the history necessary. The fact that millions of working women, out in the business world, are married does not alter the fact. The housekeeper, who assists the mistress in the home and the young woman who boards in the home and goes out to business every day are recognized as having some economic value in the country, but not the woman who keeps the home and on whom the efficiency of the workers and the growing generation depends. She is merely some man's wife, and that is all the country cares to know about her, although she may be doing the work of two. It is time that the women in the homes insisted on the work of the home being recognized officially as a profession and of economic value to the country. The work of the homemaker will never receive the respect it should until this is done, and never will it be properly taught in our schools and the homemaking of the country raised to the status of a profession.

Manitoba Election Act

The Government of Manitoba has asked some of the organizations of the province of men and women to help in drafting an election act that will prevent graft at elections.

Some little order that, in view of what has happened in the past! It reminds me of what Emerson said about the



A STOVE THAT GETS BREAKFAST ON TIME

A woman in Winnipeg tells me that she sets the stove at night, and that when she gets down in the morning, breakfast is ready. It will interest women in the country, who have electricity in the house. This stove has an alarm-clock attachment that will turn on the current in the housewife's absence, thereby relieving her of the necessity of being present when the cooking is begun, and thermometers to regulate the temperature according to the nature of the food. The housewife can put her meat, vegetables, and pastry in the ovens, set the alarm clock and thermometers, and then go away on business or for pleasure, knowing that the food will begin to cook at the proper time and be ready to serve on her return. She can cook her breakfast in the same easy way, thus gaining from twenty to forty minutes for sleep. The modern electric range is similar to the gas range in appearance, but quite different in operation. In place of the familiar burners on the top of the stove and in the ovens there are plates of refractory porcelain carrying coils of wire imbedded in grooves. The temperature of these coils can be regulated so that low, medium, or full heat can be obtained.

people who travel to get away from themselves. We can get to a new environment, but when we get there we find we have the same old sinner on board. It may be possible to draft a new election act, one without flaws, but it will not work until we get people without flaws to work it.

I remember a very religious family who lived near us on the farm at one time. They were really very good people

and were scrupulously honorable in their dealings with their neighbors, but when it came to dealing with the grain buyer at the local elevator, they left all their usual morals behind. They not only considered it right to do him, but they bragged about it afterward and considered themselves very smart if they could get ahead of him; the farther the better.

The public attitude toward the railroads, the machine companies and the

government is much the same. The general feeling seems to be that if one can get ahead of the government, it is all right to do so, and shows a certain degree of sharpness. This summer a man was talking of a politician with whom he has done much business. He said, "I would trust him with all I have, but I do not know how he would handle public affairs, for he is one of the old-time politicians."

Compulsory Voting

One of the questions being discussed by Manitoba people is "compulsory voting." It has been reported that the government is likely to make voting compulsory. The idea is to prevent the necessity for taking people to the polls. It has also been said that it will make the women all get out to vote.

At the present time there is a law making it illegal to hire conveyances to take people to the polls, but it has been done right along. The question is, "Is it possible to compel people to vote?" Personally I do not see how such an act could be enforced. The franchise could be taken from the people who did not vote, but the question is a moot one as to whether that would be wise. The suffragists believe that the vote educates the voter, and if the voter does not use it for one election, perhaps by the next, with more education, he will be glad to use it. As for the women, the registration of women in Saskatchewan shows that we need not fear for them. They will use their franchise in as great a percentage if not a greater than the men. Saskatchewan has been less active in the campaign for suffrage than any other of the Western Provinces and yet the showing of the women at the registration of voters is most encouraging.

Educational Test

Another question being discussed is the educational test for voters. Many people believe in this test and many others believe just as emphatically that it is not wise. It is a question on which all should think seriously. Personally I am not in favor of an educational test. My reason is that I believe the vote has educative value and that as long as all have it, it will be an incentive to those who are anxious for good government to insist on everyone having some education in politics. No doubt many people, both men and women, will sell their vote, but when it comes to selling a vote I would prefer to disenfranchise the person who buys the vote instead of the person who sells it. In the past we have honored the best buyer of votes and talked with shame of the seller.

My opinion is that the final result would be better to let people go on selling their votes until we have the public so educated that no one will dare to buy a vote, and when that time comes no one will be willing to sell one. And it is not quite fair for people to forever point to "the menace" of the foreigners. The foreigners have learned their corrupt politics from our politicians, and there are many of them who cannot be bought and there will be many more when they understand what power they have in the right governing of the country.

The Saskatchewan Women Voters

Over and over again I get letters from Saskatchewan asking me if the women in that province have the vote on the same terms as the men.

Yes, the women of Saskatchewan have the franchise on exactly the same terms as the men.

The Equal Franchise Board of that province has published a leaflet giving the women of the province full instructions

Continued on page 41

Around your car, in the garage — a can of **Old Dutch** comes in handy

Old Dutch Cleanser
Chases Dirt

A Whale for Work

Willys KNIGHT

Sleeve-Valve Motor

- ☛ When it comes to pulling long hard hills with twisting, turning country roads—
- ☛ When it comes down to real work, day in and day out, month after month, year after year—
- ☛ The Willys-Knight is the one type of motor that can stand up and deliver—never weakening but getting stronger all the time.
- ☛ It's the sleeve-valve motor—the Willys-Knight motor—a whale for work—and always at it.
- ☛ Carbon doesn't hurt it—valves can't get out of adjustment—so you say good-bye to the two chief causes of motor layups, when you get a Willys-Knight.
- ☛ It will pile up thousands upon thousands of miles more running than you can get out of any other type of motor.
- ☛ And the last miles will be better than the first.
- ☛ The motor almost never needs go to the shop—
- ☛ That's a vital advantage to the man who doesn't live on a paved street next door to the garage.
- ☛ Besides all the tremendous advantages of the Willys-Knight motor for everyday work in any kind of weather on every kind of road, the Willys-Knight has everything else you could ask in a strictly up-to-date motor car.
- ☛ Style—beauty—
- ☛ Comfort—conveniences.
- ☛ Is there any doubt in your mind about what car belongs on the farm? There's only one answer—
- ☛ It's the Willys-Knight—the beautiful car with the work-motor.
- ☛ See the Overland dealer—he'll show you the simple mechanical reasons for the greater power, durability and economy of the Willys-Knight motor.
- ☛ Get right down to business with him—go to the bottom of this motor question—get a Willys-Knight and know the satisfaction no other motor car can give you.

Catalogue on request. Please address Department 844

Willys-Overland, Limited

Head Office and Works, West Toronto, Canada

GASOLINE or KEROSENE WHICH?

By A. C. CAMPBELL

PROBABLY the most perplexing questions which are uppermost in the minds of every owner of a gasoline engine to-day are: "Can my engine be equipped to burn kerosene?" and "Does it really pay to make the change?"

The writer will not try to answer these questions with reference to every individual engine but will try to do so in a general sense.

Practically all throttle-governed gasoline engines can be changed and equipped to burn kerosene notwithstanding statements to the contrary, which are being made daily by numerous salesmen selling kerosene engines. Previous to the big advance in the price of gasoline, brought about by the war, there were comparatively few kerosene engines on the market and although the makers of these machines advertised kerosene extensively, the general public still believed gasoline to be the better fuel and cheaper in the long run. With a spread of about 15c. per gallon between gasoline and kerosene this year there has been a great demand for kerosene burning engines. The result has been that those manufacturers who previously only built gasoline engines, are building and selling kerosene engines, at least a great number are. Those who previously built kerosene engines are proclaiming with a loud voice "We have the only kerosene engines and these others are only makeshifts which cannot burn kerosene economically or efficiently."

This contention is absurd; the laws governing the combustion of kerosene are not secret, they are well known to our leading engineers to-day. It is absurd to assume that these builders have a monopoly of the best engineering

brains of this continent, yet the above proclamation is nothing more or less than such an assumption. If one manufacturer can build kerosene engines so can another, as it is only in minor details that they differ from gasoline engines.

The only reason that most manufacturers did not build kerosene engines before, was, that with prices which prevailed in most sections of our country, it was actually cheaper to burn gasoline.

The kerosene men contended that one pound of kerosene contained more heat units than one pound of gasoline and that, therefore, it contained more power. This contention is perfectly true, but kerosene engines do not show as good thermal efficiency as gasoline engines, or in other words, they do not get that extra power out of the kerosene, although it is

of calculation, a 50 horse power motor running at full load for 10 hours would consume 40 gallons of gasoline or 50 gallons of kerosene.

It should here be noted that these records were obtained from engines which were undoubtedly among the best in their respective classes while being operated by the best experts obtainable. At first sight this might appear to be just as fair to the gasoline engine as to the kerosene engine, but if we consider this thoroughly it will readily be seen that this is not so. In burning gasoline we have to deal with only a mixture of two elements, viz., gasoline and air, and since it is comparatively easy to mix two things correctly, the operator of average intelligence can get nearly as good economy from gasoline as an expert.

On the other hand, in burning kerosene we have three elements

hours would use 56 gallons of kerosene.

40 gals. of gasoline @ 35c...\$14.00
50 gals. of kerosene @ 20c.. 10.00

Dif. in favor of kerosene.\$ 4.00

40 gals. of gasoline @ 35c...\$14.00
56 gals. of kerosene @ 20c.. 11.20

Dif. in favor of kerosene.\$ 2.80

These figures are for a 50 horse power motor at full load for 10 hours, the differences in cost for a 25 horse power motor would be just half, \$2 and \$1.40. The prices are about the average for Manitoba at the time of writing.

The first group of figures show the difference in cost of operation between the best gasoline and kerosene engines in the hands of experts; the second group shows the estimated difference between the same engines in the hands of average intelligent operators.

The question now is: "Is it worth while trying to save \$2.80 or \$1.40 per day by burning kerosene and having as a result more trouble with dirty cylinders, spark plugs, exhaust valves and piston rings, or is it better to burn gasoline and avoid most of these troubles?"

The writer does not wish to convey the impression that he is advocating the use of gasoline in preference to kerosene, but has simply tried to put the proposition squarely before the reader so that he will not be misled by smooth tongued salesmen who try to make a prospective purchaser believe that one gallon of kerosene will produce as much or more power than a gallon of gasoline.

"The only reason why most manufacturers did not build Kerosene engines before, was, that with prices which prevailed in most sections of our country, it was actually cheaper to burn Gasoline."

undoubtedly there. The only available records of tests conducted in this country are the records of the Winnipeg motor contests, so let us study the following calculations made from the official records. The writer has taken the best records made with gasoline and kerosene in the two-hour economy test, each year for three years, viz., 1911-12 and 13, and the results of his investigations are as follows:

Gasoline			
Year	Class	No.	Econ. record 2-hour test
1911	C	15	.081 gal. b.h.p. hr.
1912	C	12	.077 gal. b.h.p. hr.
1913	B	3	.081 gal. b.h.p. hr.
Average			.0796 gal. b.h.p. hr.

Kerosene			
Year	Class	No.	Econ. record 2-hour test
1911	D	25	.099 gal. b.h.p. hr.
1912	E	23	.101 gal. b.h.p. hr.
1913	B	10	.099 gal. b.h.p. hr.
Average			.0996 gal. b.h.p. hr.

The average power obtained from 1 gal. of gasoline was 12.55 brake horse power hours.

The average power obtained from 1 gal. of kerosene was 10.04 brake horse power hours.

These figures plainly show that taking the averages of the best records obtained with gasoline and kerosene, one gallon of gasoline actually produced approximately 25 per cent more power than one gallon of kerosene.

Using these figures as a basis

to deal with in our mixture, viz., kerosene, air and water, all of which have to be varied according to load. As the load is increased the motor requires, of course, more mixture but the proportion of the elements must be changed as follows: More kerosene in proportion to air and more water in proportion to kerosene and air, as the load is decreased the motor does not require so much mixture, neither does it require so much kerosene and water in proportion to air. To get the different proportions correct for all loads requires considerable knowledge and practice. All that is necessary to prove this contention is to observe the kerosene engines at work in the field, the great majority of them smoke a great deal. Smoke represents unburned fuel, and an engine which smokes is certainly not economical for complete combustion is not being obtained.

Taking everything into consideration it is the writer's opinion that, while the best records of the Winnipeg motor contests show only 25 per cent gain in power in favor of gasoline, in the hands of the average operators one gallon of gasoline will produce 40 per cent more power than one gallon of kerosene, so that a 50 horse power motor at full load for 10

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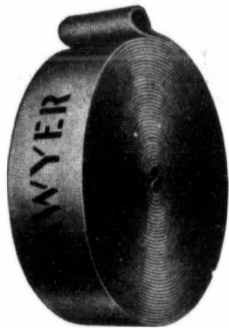
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Study Your Engine In Order To Avoid Trouble

"The man who understands his engine well enough to know exactly what is wrong with it is the man who will be able to get the maximum amount of power out of it at all times and under all circumstances."

WITHOUT doubt the chief factor which makes for success or failure with the farm tractor is that of proper operation, and no phase of this is quite so important as correct ignition, writes Prof. W. I. Dickerson, of the University of Illinois. Most gas engine authorities estimate that at least 90 per cent of the troubles met with in gas engine operation are ignition troubles; and the same proportion will nearly hold true in the case of tractors, since they are essentially a gasoline or kerosene engine mounted on a truck.

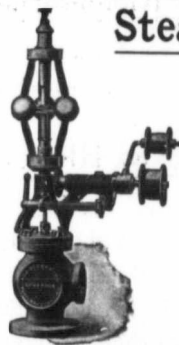
This is largely due to the fact that the ignition apparatus is chiefly electrical, rather than mechanical. The ordinary man, even with only a very crude mechanical ability, can easily see the motion of the different parts of the motor, and with a little help can work out crudely just what the purpose of each part is and how it performs its work; but when he comes to the electrical part he is up against something which is likely to baffle him completely. He may be able to see what it does, but the reasons why involve a knowledge of things electrical beyond him. Again, the electrical apparatus is more delicate and much more likely to de-

velop trouble due to wear and to exposure to weather conditions. Because of their delicacy, also, the ignition parts are easily put out of commission by the haphazard or try-this-try-that methods of remedying trouble, so often found even in garages and other places where the workmen are supposed to understand their business.

The principles underlying ignition operations, however, are really quite easily understood and any study made of them will richly repay the operator. The essential things are for him to secure the proper information and to make up his mind not to be discouraged the first few lessons because of the apparent magnitude of the task ahead of him. It may be several days before the way begins to open up, but once he gets a start the subject will unfold rapidly and the learner will wonder how any operator ever could think of remaining in ignorance. This study of gas engine operation in general and tractor ignition in particular should be begun even before a tractor is purchased, as it will not only help greatly in taking care of any gasoline engine or automobile the farmer might own, but will also put him in a much better position to choose a tractor understandingly and to get much more practical help from the expert sent to help him start the one finally decided on. Such information is easily obtained, since there are several good books on the market explaining in a simple and accurate way the

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principles of gas engine and tractor ignition. Most of the larger companies maintain short schools of instruction for owners and operators and some also give a correspondence course. Several of the agricultural colleges also give short courses in tractor operation, and there are some three or four private schools giving either laboratory or correspondence courses at very reasonable rates.

Don't's in the Care of Tractors

There are, broadly speaking, four major sources from which trouble may result. These are: Oiling, Ignition, Fuel and Cooling.

Don't forget that oil is cheaper than labor and repairs. Use plentifully and regularly at all times. Every place in your tractor that has a wearing surface due to friction from two moving parts should be oiled.

Don't oil gear teeth which are exposed to sand or grit. The oil will make the wear of the teeth more rapid, but the oil on the

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gears is a big help if the gears can be kept clean at all times.

Don't put your engine away at the end of the season without giving an entire oil bath.

Don't expect one such bath to last forever. When starting up again in the spring give it a general re-oiling.

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Don't depend upon the mechanical oiler entirely. Test it out occasionally yourself.

Don't carry oil in dirty cans, and don't use dirty rags, paper or corn-cobs for stoppers. All of these lead to getting such oil in the oil feed system which will stop up one of the leads, perhaps causing you to burn out the bearings.

Don't sacrifice safety for time. A stop now and then or a squirt of oil may save a day repairing a broken piece.

Don't forget that oil in winter and summer is of different weight. Use a different grade of oil to counter-balance this, as a heavy oil in summer and a light medium oil in winter.

Don't let the bath in the bottom of the crank case get below the over-flow level for a great deal of the engine is oiled from this splash.

Don't run a new engine as sparingly as you run an old one. Remember that after running a while the amount of oil can be decreased.

Don't try to start the engine with the switch off, nor with the spark advanced so far that a kick results.

Don't let the spark plug suffer from want of cleaning. Test occasionally in different cylinders to

see whether or not the plugs are bent so as to cause a short circuit.

Don't blame the engine for not running when all the trouble is a broken porcelain in the plug.

Don't fail to keep all connections tight. One loose connection often spells trouble throughout the engine.

Don't let any connections remain wet longer than necessary. Keep the magneto dry. Keep the batteries out of the weather, and test them occasionally.

Don't experiment with the magneto. If you do trouble will result.

Don't try to run on a low grade class of fuel. The best is always the cheapest.

Don't let dirt get into the fuel system. Keep your carburetor protected from the dust and dirt.

Don't be in such a big hurry that you haven't time to strain your gasoline.

Don't flood the engine with fuel. Too much is as bad as too little.

Don't blame the carburetor when it is the fuel, nor the fuel when it is the carburetor.

Don't forget to drain water from the engine every night during cold weather. A freeze is costly.

Don't forget to re-fill the radiator the following morning.

Don't run with the pump or fan out of commission.

Don't run with leaks in the circulation pipes.

Don't use dirty water. Drain and wash out the radiator every few weeks and put in a fresh supply.

Don't plow when it is too wet to plow with horses, for it will be too wet to plow with the tractor also.

Don't take any risk as to losing the machine through an unsafe bridge or culvert. Take a look first, a thought next and a chance last if at all.

Don't think that a tractor can take care of itself in a neglected corner of the field. Bring it home and give it a good going-over on a rainy day. It will save money as well as time.

GREASE

Use a soft grease for all purposes where grease is required, except, perhaps, the leaf spring, where tallow and graphite make a good lubricant. If you use a hard grease for your differential, it will not get home in anything like cold weather. The gear wheels will simply cut channels in it, and get left high and dry. For the grease cups, too, a soft grease is preferable, because, if you are occasionally neglectful of your duties, the soft grease will tend to run itself in—especially in the grease cups round the engine, where the soft stuff will be kept in a semi-fluid state, and get to the friction points, even if you do not turn the caps "as per schedule."

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The Art of Blacksmithing

As applied to the trade

Continued from page 35 September issue

The number of complete revolutions of the wheel must be counted. Chalk marks on a plain wheel often serve as a substitute for a zero line and pointer. On curved work the wheel should be moved over the line of mean length between the outside and inside measurements.

Marking Materials

A soapstone pencil is the best material for making surface marks on iron, although chalk slate pencils and crayons are used for the purpose. Soapstone marks will not burn off, and the end of the pencil may be filed wedge-shaped

and used to give a sharp clear line for laying out work. Soapstone pencils are made both round and rectangular in section; in either case, the pencil is usually from 5in. to 6in. long. The round pencils vary from 1/4in. to 3/8in. in diameter; the rectangular ones are usually 1/4in. thick by 1/2in. wide.

Scriber

In some cases, it is desirable to scribe on the metal a line that will cut through the surface scale. To do this, a steel scriber of the general form shown in cut is used. It is usually from 3/16in. to 1/4in. in diameter and from 6in. to 8in. long. The point must be quite hard, and the temper of the rest of the tool must be carefully drawn to secure the necessary elasticity and to prevent the point from breaking off.



Other Methods of Marking

White lead or zinc white mixed in naphtha or boiled linseed oil and applied with a slender brush is often used to letter and number pieces of work, especially when shipped to a distance. Before laying out, the surface where lines are to be made may be whitened by rubbing with lump chalk or by coating with whiting and water, turpentine or wood alcohol, which may be applied with a brush, and will dry quickly. When laying out work, the hard cold chisel and the center or prick punch are frequently used to locate the ends and intersections of lines marked on the piece of iron. Lines are often marked by a succession of dots made by the prick punch at intervals of from 1/2in. to 2in., according to the nature of the work.

Cold Chisel

The cold chisel is usually of the form shown in cut (a). A chisel about 1in. in width and 7in. or 8in. long, made of 3/4in. octagon tool steel, is commonly used for general purposes. Small chisels are made of 1/2in., or smaller octagon steel. The illustration shows the edges formed by faces ground at an angle of 60 deg.

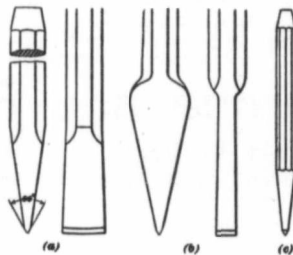
Cape Chisel

The cape chisel shown in cut (b) is used for cutting and trimming narrow grooves and slots,

and is made in widths to correspond to the widths of the grooves to be cut. The length of the cutting edge should be slightly greater than the width of the tool behind it, to give clearance for the cut.

Center or Prick Punch

The center, or prick punch, shown in cut (c), is made of the same material as the cold chisel. The size varies with the nature of the work, and may be from about 1/4in. to 5/8in. octagon steel. It is used to mark centers of holes to be drilled and to make small dots or marks wherever desired.



The Bevel

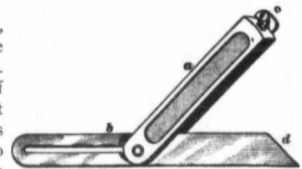
A common form of bevel is shown in cut. The bevel is used to lay off angles other than right angles, and is usually set from a drawing or templat, or from a



sample. It is sometimes called a T bevel and often incorrectly, a bevel square. The form illustrated has a cast-iron stock (a) with a slot in the middle of one end, through which slides a steel blade (b), slotted for about one-half its length and capable of adjustment about a pivot in the end of the stock.

The adjustment of the blade consists in varying the length of the projection of the blade (b) from either side of the stock, and of varying the angle that it makes with the stock. When the blade is set as desired, it is clamped by turning the thumb nut (c) on the end of the stock. The side edges of the blade are parallel and the solid end (d) is generally cut at an angle of 45 deg., or one-half a right angle, with the edges. Care must be taken not to tighten the thumb nut with more than a

gentle pressure, otherwise the threads may be stripped from the screw. It is well to keep in mind, for use in checking up work, that the sum of the two angles formed by an edge of the blade with the sides of the stock is equal to two



right angles. For testing angles while the work is hot, there is usually a shop-made bevel formed of two strips of steel, about 1/4in. or 3/16in. thick by 1/2in. or 3/4in. wide, and from 12in. to 16in. in length. These pieces are riveted together at one end and are made to work rather stiffly, so that they will remain wherever set.

Measures

For measuring long rods or bars, such as suspension rods and hangers, the more careful workmen generally use a steel measuring tape. For the general requirements of measuring small work, both straight and curved, a thin metal rule, 2ft. long by 3/4in. wide, folding in the middle, is

commonly used. It is made either of a good quality of tempered spring steel or of hard rolled brass. Cut illustrates the general form of this rule.

Continued on page 33

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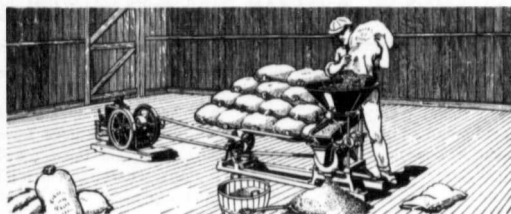
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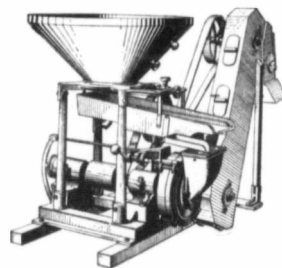
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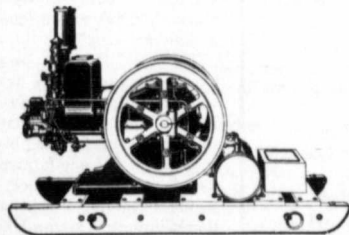
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Tractor Power For Average Sized Farm

By
DOUGLAS MALCOLM

SMALL and medium-sized farms are power hungry. Civilization has advanced, electricity has worked its miracles, steam has overcome the distance problem, and wireless has dissipated space, but for the great farm world—the conquerors of the soil—power conveniences have barely crossed the threshold.

The average farmer, who now is facing his fall plowing, threshing and marketing, expects to rely on the same primitive form of power used by Cincinnatus, the Roman; Piers Plowman, the Briton; and George Washington, the American. The difference between the modern farmer and these is that the former had no choice—it was either animal power or starvation—while the farmer of to-day can select between oat-driven horses or oil-driven engines. For ten years some of the best capital and brains of the United States has been occupied in developing and perfecting an internal combustion engine which could do for the farmer what the automobile and motor truck have done for the cities. The difficulties which these knights of power overcame will never be known, but it is estimated that one company alone spent over a million dollars before it was willing to indorse the resulting product with its trade name.

Tractor Development

Within the last three years tractor engines for farm use have passed beyond the experimental stage. They are now standardized, easily worked, and when in the hands of a man who understands the rudiments of mechanics, are revolutionizing the history-old struggle for farm power. Many experiments have been made, both by the United States Department of Agriculture and the state institutions, comparing the efficiency of the oil tractor with that of the horse. These figures are often most awakening, and show that man's oldest friend deserved his high standing in society more from the goodness of his heart and the strength of his intentions rather than from his ability to deliver the goods. Close scrutiny of his habits and manner of living is rather startling. For instance, as all psychologists know, the food one takes is turned into heat, and this heat provides energy which keeps one going. It has been found that the oats and hay which a horse consumes generate heat according to the rule, with great ensuing energy, but that 30 per

cent of the heat value of this food is used up by the animal in merely chewing and digesting it. At the same time, other duties which the horse must necessarily perform, such as carrying its own weight, consume so large a proportion of the remainder of this food that the authorities claim the thermal efficiency of the horse is not more than 6 to 10 per cent. This is true under ideal conditions. It is even lower in animals which are unscientifically fed. It would seem, therefore, that out of every hundred bushels of oats eaten, the eater delivers only six to eight bushels' worth of horse power.

Horse Labor Hours Short

Another interesting fact is that the average life of a horse is short. He lives in all about 90,000 hours. Of this 90,000 hours it is estimated that he works approximately 10,000 hours. Hence throughout his career he is being fed nine hours for every hour of service which he gives. Other experimentalists have sometimes figured that he works on an average of one out of every eight hours, or three hours in a 24-hour day. In any case, were he connected with

the average corporation he would not be considered one of their most valuable employees.

Added to all of this, the horse is what a housewife would call a good eater. He eats regularly and daintily. To feed him requires the product from one out of every five acres. Hence, a farmer is obliged to use up one-fifth of the land which the horse cultivates in paying for the power which he provides. In spite of his cost of board and lodging, the horse has increased in numbers during the last ten years practically 50 per cent, and during the same time it has doubled in price.

Tractors First on Big Farms

Owners of large areas of land felt the crying need of mechanical power before the smaller farmers, and it was with big farms in view that the early internal-combustion tractors were designed. It was soon seen, however, that the farmers of smaller tracts differed from large owners only in degrees, and the trend of tractor construction was to develop a small-sized tractor for medium-sized farms. Tractor farming has now reached the stage where it is believed that

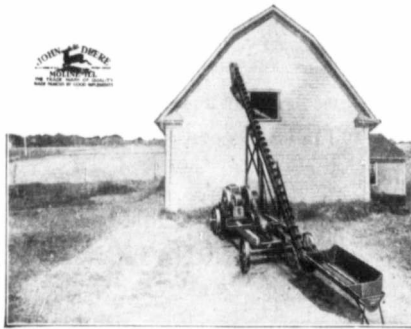
every farmer tilling 160 acres or more of land could invest in one with profit to himself. There is indeed a crying need for power, particularly in the old-fashioned regions, where farms need deeper plowing, more cultivating, more uniform seeding, and speedier harvests. Every move, practically on the farm requires power; each move requires time; and in the cost of raising a crop, time and power mean money. A horse averages about 16 cents every hour it works. Each pair of horses requires the attention of one man, whose time is worth from 15 to 40 cents each hour he works. It is the saving of time and labor which primarily makes a tractor profitable. It is the preparing of the seed bed, such as deeper plowing, more frequent cultivation and uniform planting, which constitutes the secondary value by making the returns greater from each acre.

Efficiency of Small Tractors

Contrasted with the horse, a small tractor—say 15-25 horsepower—will pull a gang of four or five plows two miles an hour for twenty-four hours a day without resting at the furrow's end or stopping for food. A horse at its best can pull a load only about fifteen miles per day, and it requires a walk of sixteen miles to plow two acres. A tractor will not only plow, but it will harrow and seed from ten to twenty acres each day, and in so doing requires only one man's attention. It will double-disk in one operation. Three seeders behind it is only a moderate load. A swath of twenty-four feet can be cut with three binders, and at the time of threshing they will easily handle 200 bushels of oats per hour. In marketing, five tons at one trip is a moderate load.

The cost of operation of the average tractor varies according to the skill of the man at the wheel. Many operators have tried to give exact figures, but they soon learn that one farmer would use less where another farmer would use more. For instance, at the Winnipeg Tractor Meet, certain tractors plowed an acre for 31 cents, including fuel and oil with gasoline at 20 cents a gallon. With others tractors the cost was found to be two or three times that much, doing exactly the same work. It can be said, however, that even in the hands of the most wasteful operators the cost of fuel is cheaper with an engine doing the work of an equivalent number

THE
JOHN
DEERE
TUBULAR
STEEL
PORTABLE
ELEVATOR



Cut shows flexible discharge spout, also receiving hopper with adjustable feed guards.

The Elevator proper is made of $\frac{3}{8}$ inch steel well casing, $6\frac{1}{4}$ inches in diameter, which makes it practically indestructible.

The Conveyor Chain does not come in contact with the Elevator sides at any point, which reduces draft and increases capacity of the Elevator.

Capacity is based on the speed at which it is driven, ranging from 15 to 20 bushels per minute, or even faster.

Power—Horse or Engine. A 2-Horse Power with the tumbling rod revolving not less than 65 nor more than 100 revolutions per minute may be used. Any standard gasoline engine from 3 to 6-Horse Power will drive the John Deere Tubular Elevator.

Write for Special Descriptive Folder.

JOHN DEERE PLOW CO.

LIMITED

WINNIPEG REGINA SASKATOON CALGARY

Continued on page 36

AULTMAN-TAYLOR POWER

For FALL WORK

Built in
Three Sizes

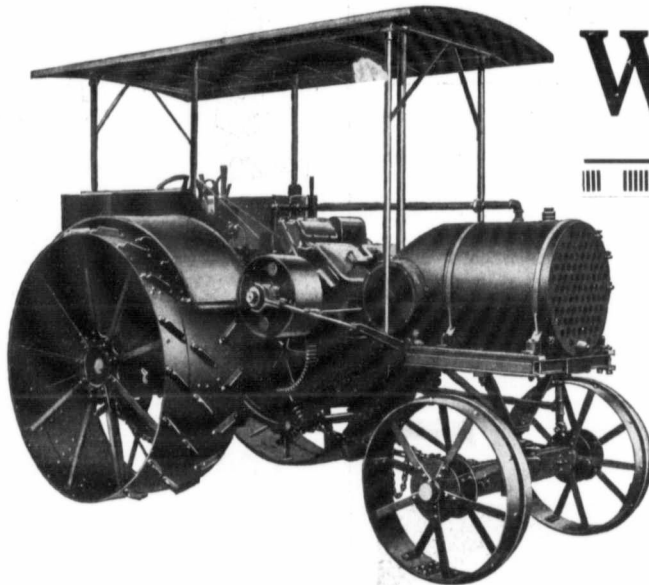
18-36

25-50

and

30-60

H.P.



Use
Kerosene
For Fuel
At All Loads

Use Aultman-Taylor power to do your fall work. You will save time and money by so doing. In one of the three sizes of Aultman-Taylor Gasoline-Kerosene Tractors you will find the proper power to do your work. Let the tractor do your fall plowing, plowing as deep as you like. Use it for baling, shredding, corn shelling, saw milling, etc. Put it to work building good roads. An Aultman-Taylor Tractor works well wherever hitched. You will find many uses for it. It will work for you nearly every day the year 'round.

NOT A ONE-YEAR TRACTOR

Aultman-Taylor Tractors are not so constructed that after one year's use they are ready for the junk man. They are good for years and years of the hardest usage. Most power users know that Aultman and Taylor have always built for durability, and especially in the building of their tractors have they looked after the durability end. You can buy an Aultman-Taylor Tractor with the absolute assurance that it will give you lasting service. The absence of vibration by reason of our specially built horizontal motor; the moderate speed at which the motor runs; the straight spur gear transmission; the locomotive truss frame and numerous other noteworthy features all contribute to the life of Aultman-Taylor Tractors.

POWER TO SPARE

That's what you have in an Aultman-Taylor Tractor. It always has been the policy of this company to give its customers more, rather than less, than they bargained for, and especially does this hold good with its tractors. Every Aultman-Taylor Tractor has a surplus of power over and above its maximum rating. While we rate them at a certain horse power, yet they will develop considerably more than their rating. This surplus, or reserve power as we call it, will help you out of many a tight "squeeze." Have

you ever wished for more power right in the height of your rush season so that you could do two day's work in one? If you have, then you appreciate what this reserve power means to a tractor owner. It's mighty nice work to attach an extra plow or two, extra seeder, a binder or the like and rush your work through when conditions are most favorable. This reserve power is a valuable asset to a tractor.

KNOW THE TRACTOR AND THE COMPANY BEHIND IT

Just at this time it is particularly important that you not only know the tractor, but know the firm behind it as well. Wise tractor buyers are devoting just as much time to sifting down the responsibility of the maker as they are to the study of the construction of the tractor. You want to be absolutely sure that the company from whom you purchase your tractor is sufficiently responsible to make good on every claim—every promise. Take into consideration the number of years of experience they have had along this line and what the possibilities are for their being in business three or four years hence; what kind of a service organization they have in operation to take care of you in case you need repairs or expert service. Every prospective buyer should know these things—they mean so much to the owner.

Back of every Aultman-Taylor Tractor is an old reliable organization with branch houses and repair distributing depots scattered throughout the United States and Canada, and amply able to care for its customers in a satisfactory manner. Our past record of 51 years of success is your future guarantee of satisfaction. Whether you are in the market to-day, to-morrow, or two years hence, it will pay you to write us for full particulars about our tractors. CATALOG AND FULL INFORMATION YOURS FOR THE ASKING.

AULTMAN & TAYLOR MACHINERY COMPANY

LOCK BOX 64, MANSFIELD, OHIO

Branches: MINNEAPOLIS, Minn.; GREAT FALLS, Mont.; REGINA, Sask.; CALGARY, Alta., Canada



Marketing Manitoba's Wool Crop

By J. H. EVANS, Deputy Minister of Agriculture

A new era in the production of wool in Manitoba has just begun. Coincident with increased production comes more efficient methods of marketing. Manitoba farmers have long since recognized the principles of co-operation as the most sound economic basis for successful trading in farm produce, and to-day our methods of marketing grain, while not perfect, are generally conceded to be an improvement on any other known method. It is not surprising then to find the flockmasters adopting the co-operative grading system, as a solution for their wool marketing problem. The

Factors Determining Values

Western wools are disposed of in the unwashed condition; the buyer in purchasing wool in this condition pays for wool and dirt; the yard stick by which the value of this wool is determined is its shrinkage. When the buyer estimates the value per pound of medium combing, medium clothing, lustre or fine medium combing, etc., he immediately estimates the shrinkage, and will appraise the value of the wool in question by comparison with scoured wool of a similar grade in the Eastern market. Granting that wool is worth 32 cents in



Wool Sample at Manitoba's Co-operative Assembly of wool product—from Flock raised at Manitoba Agricultural College. Pronounced by Dominion Government Expert grader to be the best prepared Sample of Wool in the whole collection.

old method of selling the wool crop locally on a flat basis was neither remunerative nor equitable, and had little or nothing in its favor. Supposing the sheep owner did possess a fairly accurate knowledge of the grade and market value of the wool he had to offer for sale this would be of little practical assistance in demanding full market price at home without a more or less open market for his wool. Assuming that one could cite isolated cases when the producer had received prices equal to those received through the co-operative wool marketing plan, it requires no stretch of the imagination to assume that the present prevailing prices would not be available in the absence of the co-operative scheme.

Winnipeg, and assuming the shrinkage to be 60 per cent, this would represent a clean or scoured value of 80c. per lb. Under normal conditions there is 20 per cent difference in shrinkage between the fine and coarse wools. Following this shrinkage, attention is paid to

- Length and strength of staple;
- Quality of fibre.
- Cleanliness;
- Color.

The length and strength of staple largely determines the grade, the longer staples going into the combings and the shorter into the clothing with the coarser samples grading coarse combing.

Rejects cover the dirty samples, chiefly straw and vegetable matter, whereas, seedy and dead represents a still inferior grade. Tags represent the lowest grade.

INVARIABLE



in every quality and movement that is expected in a perfect Cream Separator. That is the character of the "Magnet" and it means that it is not in high fettle one day and cantankerous the next. Every day it is at concert pitch. It is not a creature of "moods." It never varies but responds regularly to every demand. Expectation and performance are one and the same thing to the

"MAGNET" Cream Separator

The Clean SKIMMER

It is not the lowest priced machine made but it is the best value in any Cream Separator known. Quality, Character and the highest possible efficiency is first guaranteed by the severest

tests, then a modest profit to the manufacturer is added over bare cost of material and construction.

The "MAGNET" is made in Canada by Canadian engineers who have first of all gained their experience on Canadian dairy farms in all essentials to a separating machine that fits in perfectly and economically to every requirement. The result is the "MAGNET"—a separator that more than fulfils the last promise made in its name.

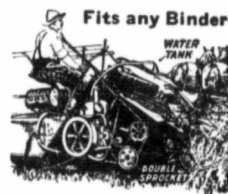
We will easily prove what we say by showing you the "MAGNET" in your own dairy. The design and construction of the machine is what has compelled us to double the output of our factory this year.

The Petrie Mfg. Co. Ltd.

Head Office and Factory: Hamilton, Ont.

WINNIPEG, CALGARY, REGINA, VANCOUVER, MONTREAL, ST. JOHN, EDMONTON, LETHBRIDGE

4 H.P. CUSHMAN SAVES A TEAM ON THE BINDER



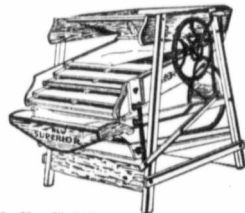
Fits any Binder

This is the original and one practical Binder Engine. Attachments for any binder. With a Cushman you can cut from 8 to 10 acres more and with less horses. If the sickle chokes, in heavy or tangled grain, simply stop or slow down the horses and engine clears the sickle. Binder runs the same, whether horses go fast or slow, and will last several years longer. In a wet harvest, Cushman saves the crop, as slipping of the bull wheel does not stop sickle. Engine on rear of binder is balanced by water tank on front. Direct-driven water circulating pump keeps engine cool on all-day run.

Cushman 4 h.p. Engine on a Binder. Fits any binder. Same engine does all other work.

Cushman Engines are so light and so reliable that they do so many jobs other engines cannot do. 4 h.p. weighs only 190 lbs., 8 h.p. only 320 lbs., 15 h.p. only 780 lbs., 20 h.p. only 1,200 lbs. Throttle governed and equipped with Schebler Carburetor and Friction Clutch Pulley.

KING OF WILD OAT SEPARATORS



Save dockage, clean your grain before marketing with The Lincoln "New Superior" Wild Oat Separator. With our patented open and blank space sieves it positively separates every wild oat seed, causing them to lie flat, and not up on end.

It is Strong, Well-Built and Bolted—Not Nailed. Our machine is built to clean any kind of grain and do perfect work. What the "New Superior" cannot do no other can do.

Made in sizes 24, 32 and 42 inches wide, with or without bagger, and with power attachment for gasoline engine if desired.

Talk with your dealer about the Cushman Line or write for Free Catalog.

Cushman Motor Works of Canada, Ltd.

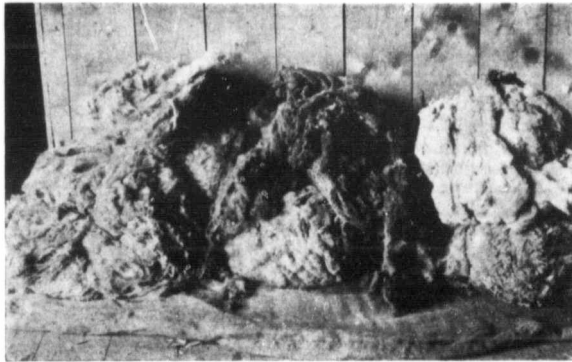
286 Princess Street
Winnipeg, Man.
Builders of Light Weight Engines for Farm and Binder use. Distributors of Reliable Power-Driven Machines, such as Fanning Mills, Grinders, Saws, Cream Separators, Power Washing Machines, etc. Also Barn Door Hangers and Mountaineer Neck Yoke Centres.

Quality in fibre or staple is very important, since it determines largely how the wool will stand combing. A weak spot in the fibre often results from the ill-health of the sheep at the time when that affected portion of the wool was growing.

Color—White wools are very much more in demand than grey or black. The white wool is useful for both white goods and pale shades of dye, whereas, grey and

Alkali Soil

Very often Western sheep feed on fallow land, and the fleece becomes laden with sand, and not infrequently alkali soil. While the latter may damage the fibre to some extent, it is nevertheless not injurious to color, and as a rule such wool will scour white. The same may be said of dry, harsh wool lacking in grease, but due to the absence of blood its value is impaired.



Another Fine Sample, but owing to the farmer failing to comply with the simple instructions as to tagging his shipment, its ownership had to be arrived at, after much delay, by circumstantial evidence.

black cannot be used for this purpose. As wool ages it is more difficult to scour and seldom comes through the process as light in color. White color in the fleece does not altogether determine the color of the scoured wool. Wool should always be rolled flesh side out, since this exposes the best color, and our first impression is received through what is seen by the eye. Damp wool soon turns yellow

Grading and Sorting

Grading means the placing together of fleeces of similar quality, whereas, sorting is the separating of the various qualities of wool often found in a fleece. Wools from the Down breeds are generally more uniform in quality throughout than fleeces from the long woolled breeds, which occasionally show a tendency to coarseness. Speaking generally, wool immediately behind the



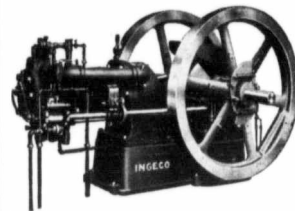
Think of the "business instinct" that sent this sample—absolutely loaded with sticks and straws, very little of which need have found its way into the wool if the sheep had received ordinary care. It is roughly estimated that about 50 per cent only of this shipment was wool and 50 per cent refuse.

when packed, and if allowed to remain in this condition for too long a period the fibre becomes injured. In not a few cases the officials of the Department of Agriculture found it necessary to expose to the sun wool received for sale, in order to preserve its quality. Of course, there was a loss in weight.

shoulder is longest, strongest in staple, and of the best quality, whereas the coarsest part of the fleece is at the "britch." Sorting is almost entirely carried out by the manufacturers. They require uniformity of fibre and freedom from any tender or weak spots in the staple or fibre.

Owing to war conditions there

We Need the Money!



And to get it quickly and honestly we propose sacrificing all profit and a big slice of original cost on the following lines of

FARM POWER MACHINERY

OHIO ENGINES		GASOLINE TRACTORS	
16 H. P. Standard (new).....	\$326.75	45 H. P. 4 cylinder Tractor (rebuilt).....	\$1,200.00
12 H. P. Standard (new).....	206.50	45 H. P. 4 cylinder Tractor (new).....	1,750.00
11 H. P. Special Hopper cooled (new).....	189.00	Manitoba Universal (rebuilt).....	600.00
12 H. P. Standard (rebuilt).....	200.00		
8 H. P. Standard (rebuilt).....	175.00		
INGECO KEROSENE ENGINES		GEISER SEPARATORS	
2 1/2 H. P. Farm Engine, Hopper cooled (new).....	55.00	AA Sep. 40x60, complete (rebuilt).....	\$1,000.00
BADGER ENGINE GAS STANDARD		A Sep. 35x56, complete (rebuilt).....	800.00
14 H. P. (rebuilt; good order).....	\$150.00		
TRACTORS, STEAM		PORTABLE ENGINES	
35 H. P. Double Cylinder (rebuilt).....	\$2,000.00	22 H. P. single cylinder, portable, Geiser (new).....	\$750.00
25 H. P. Northwest (rebuilt).....	1,000.00	22 H. P. single cylinder, portable, Geiser (rebuilt).....	500.00
23 H. P. American Abel (second hand, repaired).....	400.00	20 H. P. single cylinder, portable, Geiser (rebuilt).....	500.00
MAGNETOS		Also have a couple of 20 to 22 H.P. portables which will rebuild and sell at about \$400.00 each.	
A quantity of New Wizard Magnetos.....	at \$7.50 each		

A FEW FEED GRINDERS, 6-inch Superior Grinders..... \$18.00
POWER WASHING MACHINE, One Minute Washer, new..... 11.00
 Cash Prices, but Reasonable Terms can be arranged in the case of Tractors.
 Write for any details you want, and merely state what you need.

R. S. EWING, 200 Union Trust Building, WINNIPEG

Donald Morrison & Co.

ESTABLISHED 1904

**GRAIN COMMISSION
 GRAIN EXCHANGE
 WINNIPEG**

WE handle Wheat, Oats, Flax and Barley on Commission, obtaining best possible grades and prices. Our work is prompt, accurate and reliable. Let us handle YOUR shipments this season. Daily or weekly market letter on application.

References: Bank of Toronto, Northern Crown Bank and Commercial Agencies.

Breakages WELDED BY Oxy-Acetylene

impart a strength to the machine greater than it ever possessed, while the job is the most finished bit of work ever attained in repairing a fracture.

**WE ARE THE PIONEERS OF THE PROCESS
 ARE EXPERTS IN EVERY DETAIL OF OXY-ACETYLENE**

If anything breaks or is worn out on your threshing machine or traction engine, have it welded by the Oxy-Acetylene process.

YOUR BLACKSMITH OR REPAIR EXPERT CAN DO THIS WORK FOR YOU See him now about your broken castings. If he has not a welding plant write us, giving his name, and we will supply him with full particulars. It will save you time and money.

L'Air Liquide Society 328 WILLIAM AVENUE, WINNIPEG, MAN.
 Largest Manufacturers of Oxygen and Welding Plants.

Dr. Thomas' Eclectric Oil
 Relieves all Pain in Man or Beast
 25 Cent Bottles at all Dealers

is an abnormal demand for the coarser or combing wools, the clothing wools being somewhat less in demand, and used chiefly for making finer materials and broad cloth.

Methods Followed

All sheep owners in the province of Manitoba were supplied early in April with a circular, setting forth in detail the requirements in connection with the wool marketing scheme. It was required that all wool be shipped, to the order of the Department of Agriculture, during the month of June. Owing to the wet weather in June, however, a great deal of the wool was not shipped in until the middle of July. All fleeces had to be rolled and tied with paper twine, and properly packed in wool sacks. Paper twine and wool sacks were supplied by the department at cost. Any fleeces tied with binder twine were kept separately and graded among the rejects, since the binder twine will not take dye and spoils the woollen product.

Shipping tags were supplied in sufficient numbers to enable the

Stumps Out—Quick and Easy

Here at last is the land clearing device you have been looking for—the Kirstin One-Man Stump Puller—a simple, powerful, practical Puller that one can handle and operate with ease. No big, expensive, cumbersome outfit—no horses to drive—no extra work of any kind. With the Kirstin, one man *alone* clears land quickly, easily, economically. Costs little to begin with—nothing for upkeep—and costs far less to operate than any other hand or horse power puller on the market. In the

Kirstin One-Man Stump Puller

You get every quality needed for land clearing—strength, power, speed. The Kirstin is the only stump puller with variable speeds. This gives you a big advantage—saves much time. To start the tough stumps, you have enormous power; then when the stump breaks loose, a turn of a wrench gives greater speed. Any and all kinds of stumps—big, little, green, dry, tough—also trees and hedges—are pulled quick and easy. The Kirstin holds the record for lowest cost of operation. Prove our claims by

Ten Days Try-Out on Your Farm

With the Improved Double Leverage Kirstin you can clear over an acre from one anchor. Also no time wasted in frequent re-setting of puller. The Kirstin is designed to save time. When you get a Kirstin you get a complete, practical Stump Pulling Outfit at *little cost*—and you are protected by the *Kirstin Iron-Clad Guarantee*.



A. J. KIRSTIN-CANADIAN CO.
6120¹/₂ Dennis St., Sault Ste. Marie, Ont.

The Kirstin can be used anywhere—in hillside, in swamps and on rough ground or in thick timber where no other puller could be used. The Government has Kirstin—so do several of the State Experiment Stations—and thousands of land owners from Alaska to California and from Canada to the Gulf are loyal boosters for the Kirstin because it has demonstrated its superiority as a land-clearing device. If you have only a couple of acres of stump land you can't afford to let it lay idle. Get a Kirstin now—clear out those stumps—make your idle land pay you a profit.

Get the Kirstin Catalog—Today!

Any one having stump land should get this valuable free book at once. It tells all about the wonderful Kirstin One-Man Stump Puller, the Kirstin Service Bureau, the Payment Plans and fully explains exactly, best, cheapest way to clear your land. Fill out the coupon or mail a postal—today—now!

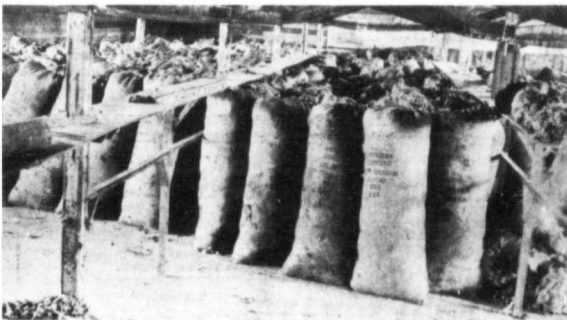
FREE Book Coupon

A. J. KIRSTIN-CANADIAN CO.
6120 Dennis Street
Sault Ste. Marie, Ont.
Please send me your free book on Stump Pulling.

Name
Town
R. F. D. or P. O. Box State

Open to Inspection

The wool was open to inspection at all times and large buyers all over the American continent notified of the amount of wool offered for sale, average quality and date when tenders would be



A little corner of Manitoba's wool store. These sacks (standing about 8 feet high) contain the wool, after it has been carefully graded and sorted. The character of contents is branded on outside of each sack, and the whole is classified and placed according to its "sort."

shipper to attach one on the inside as well as on the outside of the bag and thereby avoid any danger of wool being received unidentified. Freight was prepaid in the majority of cases.

Weighing and Grading

The Dominion Department of Agriculture supplied an expert to perform the grading, a record of which was kept on forms supplied for the purpose, and known as "Domestic Wool Grading Sheets." Upon receipt of wool at warehouse, it was weighed in the presence of both the official grader and a representative of the Provincial Department of Agriculture. The shipper was then notified and an advance payment made of 20c. per lb., the balance being paid after wool was sold and full settlement received. The wool was immediately graded and packed in wool sacks. On each sack the weight, grade and Dominion emblem was stenciled by the grader.

received. Bids were received by closed tenders, and wool sold to the highest bidder. The sale was made on the basis of the grades as classified by the Dominion representative, who acted on behalf of both seller and buyer in this respect. Wool was sold for cash, f.o.b. Winnipeg, and a deposit of 5 per cent of the purchase price was required of the purchaser, at the time of sale, and balance when shipment was made.

Expenses Incurred

These expenses include printing, advertising, postage, draying, labor, insurance, loading and freight. After the sale was completed an estimate of these expenditures was arrived at, and deducted from the price received for the wool.

Amount Sold

This year we received in the neighborhood of 160,000 pounds of wool, 154,000 of that amount being officially graded. The ungraded wool was sold locally for

"LIFE INSURANCE IS AN ALLIANCE OF PRUDENT MEN AGAINST MISFORTUNE."

Do not confess yourself imprudent by remaining outside that protective alliance. The policies of The Great-West Life Assurance Company offer protection upon terms so attractive that for many years the Company has stood FIRST for Canadian business. Over 59,000 policyholders are protected to the extent of over \$125,000,000. Their satisfaction is founded upon an unequalled experience of

LOW PREMIUM RATES
HIGH PROFIT RETURNS
LIBERAL POLICY CONDITIONS

Permit the Company to give you information. State age.

The Great-West Life Assurance Company

Dept. "U" HEAD OFFICE - - WINNIPEG

Ask for the book of "Patriotic Songs and Poems"—free on request.



BEST ANTI-FRICTION BABBITTS ON THE MARKET

With forty years' experience in manufacturing alloys for all classes of machinery, the HOYT METAL CO. has evolved two alloys which are unsurpassed by anything of the kind now in use.

HOYT'S NICKEL GENUINE Babbitt is especially designed for heavy duty gas tractors.

HOYT'S FROST KING Babbitt is especially designed for threshers, separators and stationary engines of all classes.

If your dealer does not carry these metals in stock, send your order direct to us. In order to insure prompt delivery, send postal money order.

Nickel Genuine	Frost King
Less than 28 lbs. 75c per lb.	Less than 30 lbs. 40c per lb.
28 lb. box 70c per lb.	30 lb. box 37c per lb.
56 lb. box 65c per lb.	60 lb. box 35c per lb.

Delivered to your nearest express or post office station.

Hoyt Metal Co. Eastern Ave. and Lewis St. TORONTO
FACTORIES—London, Eng.; Toronto, New York and St. Louis.

the best price available at that time. It was found this year that a deduction of 1c. per pound was barely sufficient to cover all expenses incurred. The following statement represents the number of pounds of the different grades of wool sold and prices received in each case:

lbs. per lb.
Fine clothing 2859 @ 30 c.
Fine medium combing 6726 @ 33 c.

Fine medium clothing 6581 @ 30 c.
Medium combing... 57230 @ 34 c.
Medium clothing... 11642 @ 30 c.
Low medium combing 37400 @ 34 c.
Coarse 1639 @ 32 c.
Lustre 15542 @ 30 c.
Gray and black... 3111 @ 22 c.
Rejections 2044 @ 24 c.
Seedy and dead... 2471 @ 22 c.

Locks and pieces... 2989 @ 22 c.
 Tags 1280 @ 10½c.
 Mohair 120 @ 28 c.

The balance required to make the total of 160,000 pounds of wool represents the ungraded quantity sold by the department.

One of the outstanding features in connection with the whole scheme is the number of small sheep owners who benefit by it. It is estimated that Manitoba has a thousand flockmasters and over half of their wool was marketed through our hands this season. By careful breeding, keeping the flock in a healthy condition, and the subsequent care in the handling of the wool clip in clean quarters, an increase of fully 5c. per pound could still be procured for the Manitoba wool crop.

While the above statements are somewhat ill-arranged, and cover very imperfectly the many features affecting the co-operative wool scheme, it is sincerely hoped that some chance reader may benefit. Manitoba flockmasters are marching in the right direction, and are not merely satisfied with the production of more and better wool, but will go a step farther and procure the last cent.

The fact that the Manitoba Department of Agriculture marketed this year considerably over twice the quantity sold through this agency last year, augurs well for the future of co-operative wool marketing in this province.

FARM TRAINING FOR SOLDIERS

Promising Results of a Government Experiment in England

Canadians are looking forward with considerable hope to the arrangements, made and making, to establish ex-soldiers as farmers.

First in order of importance, of course, must be the Dominion government's plan. This, as the Prime Minister assured Sir Rider Haggard the other day, "Will be satisfactory to all those who have at heart the great purpose." For its details we must wait till parliament meets.

Then there is the scheme embodied in the British Columbia "Soldiers' Homestead Act." This includes a free grant of land, and a loan of money for improvements to each soldier settler, with exemption from all except school taxes, and five years' exemption from seizure for debt.

There is also the scheme of the Canadian Pacific Railway—a development of the ready-made farm system, the company devoting millions of dollars to this enterprise.

Most of the schemes proposed are for able-bodied men; and for general farm work an able body is as necessary as an able mind. But some forms of work on the land can be hopefully undertaken even by men more or less disabled.

The government, through its Military Hospitals Commission,



Stop-the-War Orator: "Don't go away, boys—just going to begin."
 Tommy (home on leave): "No thanks—we ain't got our gas helmets!"



"REDWING" Thresher Belts

Deliver the SERVICE as well as the POWER

You know how threshing takes it out of a belt. To stand the weather, the side-strains from the wind, the staking, and the frequent putting on and off, a belt must be specially made, with extra strength and durability.

Our "RED WING" Stitched Canvas Thresher Belt has these qualities built right into it, and as a result it has taken first place with Canadian Threshermen.

In making a "RED WING" Belt, heavy specially woven Sea Island cotton duck is folded to four or more plies of the desired width, after being spliced diagonally to make an endless strip. The layers are stitched together at quarter-inch intervals with double stitching at the edges and for several feet at the splice.



Made in Canada For Canadian Use

Thorough impregnation with a special oil provides permanent lubrication of the fibres, preventing friction and wear from the bending over the pulleys. This oil is kept in the belt, and the surface protected from the weather by a red paint which blends with the oil and forms a protective coating. A powerful machine then takes out the excess stretch, leaving just enough elasticity for satisfactory service.

After several months "seasoning", this "RED WING" Thresher Belt is ready to give you more service per dollar of cost than you can get from any other belt.

If you prefer a Rubber Belt, give our "Star" or "Lumber King" a trial. Our nearest Branch is equipped and ready to give your belting needs prompt attention and service.

Canadian Consolidated Rubber Co.

Limited

Head Office - - MONTREAL

Branches at Winnipeg, Brandon, Regina, Saskatoon, Edmonton and Calgary.

is already giving the men at some of the convalescent institutions instruction in gardening and poultry-raising, and a good deal of progress may be expected along these lines.

Canadians are, therefore, keenly interested in watching the similar experiments now being carried on in the old country.

In England, the first experiment in the programme of training disabled soldiers for work on the land started eight months ago at the Cheshire County Council's Agricultural College, and the result so far is regarded as most promising.

Some of the men have either lived in the country or worked on the land before, while others are town-bred; but all alike have shown considerable aptitude. They have been disabled in various ways. Two, for instance, have lost an arm, and one a hand, but all three have shown themselves perfectly competent to do good work. In every case the country life and work in the open air, have been of benefit to them.

The main endeavor has been to make the men good all-round farmers. Some of them will be able to manage small farms of their own; others have obtained or are obtaining sufficient practical knowledge to assist in gardening, dairy work or poultry raising. All spend much more time in actual work than in attending class-room lectures; but they are learning a little botany and chemistry, and enough veterinary surgery for simple purposes. Some of the men have already been placed in good situations.

One of the most urgent requirements of our own country is that our returning soldiers shall be encouraged and assisted in every practicable way to seize the opportunities offered them for such training; and this will be available not only at the Convalescent Hospitals, where a beginning can be made, but afterwards at the agricultural schools and colleges which have offered to instruct men disabled from returning to their previous occupation.

The government, as our readers will remember, makes special money allowances for the maintenance of the men and their families while this instruction is being taken.

Blacksmithing

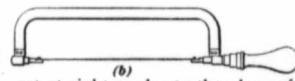
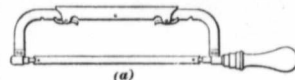
Continued from page 24

Hack Saws

The hack saw is now usually considered a necessary part of the blacksmith-shop equipment. Hack-saw blades vary in length from 6in. to 16in., and even longer, and may be used either in hand

frames or in specially designed frames moved by power.

The hand frame illustrated in cut (a) is an adjustable frame, in which blades from 8in. to 12in. long can be used. The clamps holding the blade may be turned so that the blade will cut up or down in the plane of the frame, or at right angles to the frame. Thus it is seen that the blade may be turned to face any one of four ways. Cut (b) shows the blade



set at right angles to the plane of the frame.

Hack saw blades are so hard that they cannot be filed, and are so cheap that when dull they may

be thrown away. They are made with about 25 teeth per inch for sawing thin metal, and with about 14 teeth for other work. The blades used in hand frames are about 25/1000-in. thick and 1/2 in. wide, an 8in. or 10in. blade being the most economical. The operator should lift the frame up slightly when drawing the saw back or the back stroke, if the work is in contact with the teeth, will be much more destructive to

Dunlop Thresher Belts have no superior anywhere.

There is no other factory in all Canada better equipped to manufacture rubber belting than the Dunlop plant.

Up-to-date facilities, expert workmen, and A1 materials, one and all, point to an unexcelled product.

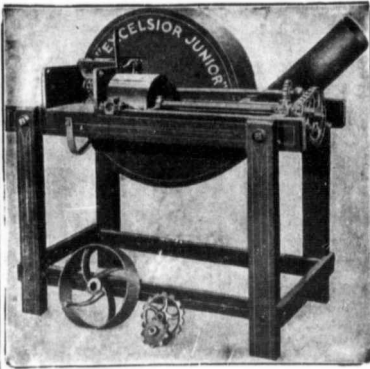
DUNLOP THRESHER BELTS

The duck used in the construction of Dunlop Thresher Belts is of the long, hard, closely-woven kind.

The curing process takes place under a hydraulic pressure equal to 50 tons in weight.

There is no lost power when Dunlop Thresher Belts are used because they have the maximum of strength, durability and toughness and the minimum of stretch.

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For Handling Dry Feed with Small Power

You cannot beat the "Excelsior" Junior Blower Feed Cutter. Ideal for feeding from 5 to 15 head of stock. Can be run by Gasoline Engine, Sweep Horse Power, Windmill or by hand and will cut and elevate up to half ton of feed per hour. Cuts three lengths, 1 inch to 11 inches by changing gears. Perfectly tight—with hood underneath. Has 9 inch throat, two concave knives of specially tempered, best English steel, connection for 6 inch stove pipe, and 12 inch by 4 inch pulley. Operator can instantly stop, start or reverse feed rollers, while machine is at full speed, with one lever, which is in easy reach.

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COMBINED HORSE POWER AND GRINDER

Very suitable for the man who uses horse power only. Like all the Watson line of implements and machinery, this No. 15 horse power and grinder is built of the finest materials obtainable, is of simple, sturdy construction, and will give you the greatest returns on the smallest outlay of time and labor.

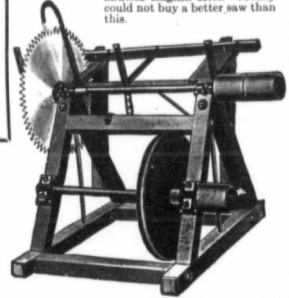
Two sets of burrs are furnished with the No. 15—one set fine and one set medium; but we will, if you wish, substitute a set of coarse burrs for the fine or medium.



Watson's Pole Saw

Has three 5 inch by 6 inch pulleys, solid steel shafts and boxes, solid, heavy fly wheel, placed well clear of poles, on a rigidly braced hardwood frame.

The blade is made of perfectly tempered flawless English steel. Money could not buy a better saw than this.



Watson's "IDEAL" Sleighs

Set the standard for sloop sleighs. Runners have cast shoes of registered design which are turned up at rear and to enable sleigh to be easily backed up. Patent "Trussed Bench" made of Grey Elm or Oak. Extra heavy, choice White Oak Poles and Headers. More steel and better placed. The "Ideal" is superior in design, material, and finish to any sleigh yet offered.

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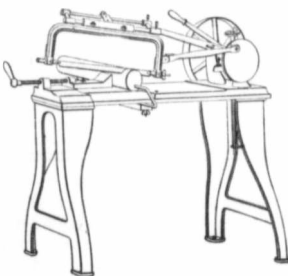
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- JANESVILLE FLOWS

John Watson Mfg. Co.
LIMITED
311 Chambers St. WINNIPEG

the teeth than the forward stroke. Power Hack Saw

For cutting off bar stock, a power hack saw, like that shown in cut, will be found exceedingly useful. Such a machine is usually provided with a vise for holding the stock to be cut off, and is so



constructed that the machine will stop when the piece has been sawed through. Provision is also made for lifting the saw on its back stroke so as to save the teeth. The blades are generally 12 in. or more in length, and will cut stock up to 4 in. in diameter. The power hack saw is especially useful for cutting off tool steel.

Twelve Months of this Magazine for \$1.00

What The Auto Has Done

Autos and Better Roads are Working Together to Widen the Farm Neighborhood; and the Widening Process is only Beginning.

ACCORDING to the best figures available there are now nearly two million automobiles in the United States. Probably nearly one-half of these are farmers' cars, and when it is recalled that it was not until 1910 that the farmer began to any extent to buy automobiles some measure of the value he attaches to the car may be obtained. There is always the same question whenever a new thing comes along—whether or not it can be afforded, whether or not it is useful, whether or not it is an extravagance rather than a necessity. It was natural that these questions should be asked relative to the automobile. I can remember, not so long ago either, when the same identical questions were asked in our neighborhood about the top buggy. There were ox-driving farmers who believed that the limit of extravagance had been reached by the young blades who bought single-seated buggies to take their girls out riding. You know how it worked out. The buggy and the driving horse enlarged the neighborhood, widened

our acquaintance one with the other, made the social life on the farm a little more tolerable, gave the farmer-boy something beside hard work to look forward to.

You recall too when the binder was looked upon by the man who swung the cradle or bound after the dropper as an extravagance. The fact is that all progress is looked on as an extravagance by those who are not yet accustomed to it. So the automobile has come and it is worth while to stop for a moment and look at the changes it has already brought about.

The Value of Personal Acquaintance

Unquestionably the biggest social happening of the present day is the change that is coming about in the neighborhood life of the farm. Until we had come to know each other we could not work together and co-operation was only a name, but with acquaintance comes understanding and knowledge and confidence in our fellows so that it is easy, once we are acquainted, for us to co-operate, and according as

our acquaintance is narrow or wide, on a narrow or wide scale. Co-operation of the real and lasting sort never far out-runs personal acquaintance. While it is true that movements grow up, co-operative in name, where the individual members have no knowledge of each other, it is also true that these movements are always directed by a few at the head and that they generally wind up in disappointment. The automobile, by enlarging the neighborhood, has greatly widened our acquaintance and the possibilities for co-operation. It is not saying too much to say that it has been the one thing necessary to this new social acquaintance and co-operative movement.

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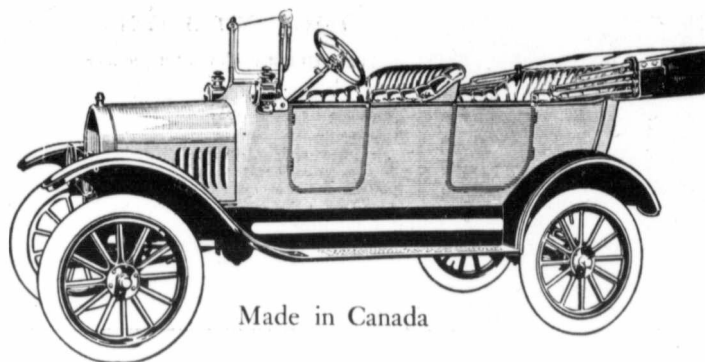
Measure Your New Neighborhood

How largely our acquaintance has been widened by the automobile it is hard to say unless we think back to the days before it came. How big a neighborhood did you then have? How many times in the year did you and your family sit down to dinner with neighbors who lived ten miles away? Not very often. Today the neighbor ten miles away is only thirty minutes distant from your home. No farther off in fact than the neighbor two miles away used to be in the lumber-wagon days, and remember that with your home as a center the circle has grown at least in that proportion and perhaps a great deal wider. To get the idea more clearly in mind, take the pencil and a piece of paper, make a dot in the center of the paper and call it your home, then measure out two inches and draw a circle around the same; that's the old farm lumber wagon neighborhood. Now draw a circle ten or fifteen or twenty inches in diameter, as the case may be, taking in your present acquaintance, the present distance to which you easily travel and the country with which you are intimate and again draw a circle to represent the new automobile neighborhood. Doing this will give you a very clear idea of how the automobile has enlarged the neighborhood and the possibilities of one's acquaintance.

Business Follows Knowing Each Other

But acquaintance is not the only thing the automobile has brought. With acquaintance comes business opportunity. The automobile has opened up our markets. It has made us acquainted with the merchants and business men of the surrounding towns as well as those of our own. This has not been a bad thing for our local merchants. They have profited by the competition that the neighboring towns began to offer. Our stores are better stocked, our clerks wait on us more satisfactorily than they used to do, possibly because we ourselves are better acquainted with what we want. When the buyer has his choice, not merely of two or three stores, but the stores in half a dozen, thriving towns, he is fortunately situated and has buying opportunities quite equal to those afforded by the large cities.

In the matter of marketing produce of the farm the automobile has brought about marked changes for the better. Just as the buying acquaintance has been broadened so the selling acquaintance has been widened. The man who does not know market conditions is at present in a constantly decreasing minority.



Made in Canada

The 1917 Ford Touring Car

THE old, reliable Ford Chassis—Stream line effect—crown fenders—tapered hood—new radiator with increased cooling surface.

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Runabout . . .	475	Town Car . . .	780
Touring Car . . .	495	Sedan . . .	890

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The Auto Truck is Coming

The effect of the automobile upon country life is only beginning to show. Up to the present time the passenger car has held the center of the stage. With the betterment of our roads, with the increased community co-operation that is marking the present day, bettered methods of selling and of marketing are bound to supersede the expensive farm to town delivery of the present and the auto truck is coming just as surely as the binder replaced the old-fashioned reaper. Already where the farming is of a character to admit light loads the passenger car is doing a very considerable trucking business, but this is only a beginning. The motor truck that can travel ten to

fifteen miles an hour with a heavy load is going to get our heavy produce to market at a lowered cost per ton. In other words it is going to prove itself by paying its own way. Just how this is going to work out in your neighborhood and mine is a question for each neighborhood. It is likely that the truck will replace the farm wagon rather slowly at first and that men will gradually take up the hauling of farm produce as a business just as the transfer companies of the larger cities do the general hauling for all save the larger firms.

Now this is only a bare glance at the automobile industry of the present and the future. A great deal more might be said, but the one thing for us all to remember

is that the farmer's car is no longer a luxury; it is a necessity, binding the community closer together in acquaintance and in friendship, reaching out and enlarging the business opportunities of a farmer, making the farmer independent of purely local conditions and increasing his earning power in proportion as he takes advantage of its many uses. What the passenger car has done so well in the past five or six years the freight carrying car is going to help along in the years to come. We are just entering the automobile age and the man who so far has hesitated about buying a car because he does not believe it would pay may find it to his benefit socially, and in all ways to reconsider his former attitude.

Tractor Power for the Average Sized Farm

Continued from page 26

of horses than it would be to feed the horses. There are tractors in the market which weigh less than six horses, and still do the work of twelve if worked double time. They have the advantage in that where it has been customary to feed a horse, give him comfortable quarters, and keep him clean, a tractor requires only a shed, an oil can and cotton waste. It has a running expense only when it is running. When the engine is shut off this cost ceases. It has an extra virtue in that it can not contract diseases, catch cold, nor take sick and die. It is, however, subject to breakage, and the parts receiving the greatest wear at times have to be replaced. The blacksmith is its physician, and broken parts can be secured and replaced before a sick horse would even start convalescing.

Many Jobs For Tractors

It is not claimed even by the most sanguine designers that the tractor is in a condition to work miracles. It is claimed, however, that in the economic requirements to broaden the gap between the cost of producing and the selling price, the arguments are in favor of the mechanical substitute for the horse. There are places where a horse can go and where a tractor can not go. Then again there are many tasks for which horses are not fitted, such as threshing, cutting silage, irrigating, husking and shredding, grinding feed, and making roads, which are everyday sports for an engine. Like all revolutions of great moment in commerce, the changes are slow.

Farmers act as individuals rather than en masse, but so many are learning that by using a tractor in place of horses they can save a little money on plowing, a little more on hauling, still more on seeding, more yet on harvesting and hauling to market, that the tractor is fast becoming a common sight in all parts of the country. It is good business thinking on the part of the farmer, because if he can save 20 cents in the production of a bushel of wheat, he is making as much on that wheat if the market is 80 cents as his less efficient neighbor is making when the market is one dollar. Business men early found that the selling price did not so much determine profits as the producing price. This truth holds good with a bushel of corn as consistently as it does when applied to shoes. Efficiency on the farm is as important as efficiency in the factory. Hence the farm workers who adopt the most effective time and labor-saving methods in raising their crops will in the end probably find themselves the most successful money-making farmers.

KEEP THE CAR IN REPAIR

The average farmer does not have one-half the trouble running a car that falls to the lot of the city man. He is constantly handling machinery, and knows the value of good care in its use. But he, too, is at times likely to have trouble, and it is a good plan to group the possible troubles into a small space. This has been well done in the following eight rules for the care of the automobile:

First—See that the gasoline tank contains a sufficient quantity of gasoline; that there is plenty of oil in the crank case; that the radiator is filled with water and that the tires are properly inflated.

Second—Lift hood and screw down grease cups; inspect the cooler connections and the wiring to the magneto, coil and spark plugs; oil the valve stems and push rods; inspect oil pump and fittings.

Third—Screw down grease cups on front springs and front axle; see that the nuts on the spring bolts are tight; give grease cup on steering gear housing a turn.

Fourth—Remove floor boards and oil the gear-shifting mechanism; also the clutch and brake mechanism.

Fifth—Screw down grease cups on the rear springs and see that the spring bolt nuts are tight. Inspect the differential housing for loose nuts or bolts; examine the brakes and screw down grease cups over brake shaft.

Sixth—Fill lamps if necessary; inspect the body bolts and fender bolts; fill all grease cups with good grade of medium weight grease; keep the wheel rims free from mud and sharp edges; clean the body and fenders.

Seventh—Occasionally jack up car under frame; pry the spring leaves apart with a heavy screwdriver and lubricate between leaves with graphite mixed in oil; keep transmission case and differential case two-thirds filled with a good grade, medium gravity grease.

Eighth—Occasionally drain oil from crank case and then flush out crank case by pouring gasoline or kerosene through breather tubs. Every ten days or so put two or three tablespoonfuls of kerosene in each cylinder to cut carbon and let stand over night. If ever a foreign or unfamiliar noise develops, satisfy yourself as to what it is; negligence of this may result disastrously.

To loosen a rusted-in nut, fit over it a square iron block, and start by tapping with a hammer.

When Buying Machinery—Equipment for the farm often is made expensive because some one thing has been forgotten. A man may figure that he can get along without an extra bundle wagon, or a hay fork, or a pumping engine, and because these, or some other equally essential link in the equipment chain has been omitted, his men and teams are all tied

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Consumers' Lumber Company VANCOUVER, B.C.

up a part of their time, and the daily average of work is seriously cut down. The correct principle in buying is to consider the entire scope of the work to be done and the size of crew to be employed, then to provide such equipment that the entire crew will be busy all the time and the individual pieces of machinery idle as little of the time as possible.

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WE can weld your broken Tractor parts; whether a small lever or the largest cylinder or crankcase, and make them as good as new at low price. All metals welded. Welds guaranteed.

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OUR YOUNG FOLK CONDUCTED BY Cousin Doris.

AN AMERICAN BOY WHO DIED FOR US

"Yes, my dearest folks, we are indeed doing the world's work over here and I am in it to the finish."

"I pray that our Heavenly Father may assuage the anguish of your bereavement, and leave you only the cherished memory of the loved and lost and the solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.—President Lincoln to Mrs. Bixby, of Boston, who lost five sons killed in battle, November 21, 1864.

That wonderful message of the great Abraham Lincoln will fittingly precede this moving story of an American boy of 24 who laid down his life for us less than a month ago at the date of writing. The spirit which moved this young hero to take up the sword for England and for Freedom was enshrined for ever by himself in a letter which is one of the finest statements of the Allies' case yet penned.

To My Dearest Folks

It was written last January, and has an added light now that its writer has laid down his life, as he was willing to do, to help "the world's work."

Here is the letter, which says all there is to say of it. It was written to "my dearest folks."

An Immortal Letter

"I am now no longer untried. Two weeks' action in a great battle is to my credit, and if my faith in the wisdom of my course or my enthusiasm for the cause had been due to fail it would have done so during that time. But it has only become stronger; I find myself a soldier among millions of others in the great Allied armies fighting for all I believe right and civilized and humane against a power which is evil and which threatens the existence of all the right we prize and the freedom we enjoy.

"It may seem to you that for me this is all quite uncalld for, that it can only mean either the supreme sacrifice for nothing, or at best some of the best years of my life wasted; but I tell you that not only am I willing to give my life to this enterprise (for that is comparatively easy except when I think of you), but that I firmly believe—if I live through it to spend a useful lifetime with you—that never will I have an opportunity to gain so much honorable advancement for my own soul or to do so much for the cause of the world's progress, as I have here daily defending the liberty that mankind has so far gained against the attack of an enemy who would deprive us of it and set the world back some centuries if he could have his way.

"I think less of myself than I did, less of the heights of personal success I aspired to climb, and more of the service that each of us must render in payment for the right to live and by virtue of which only we can progress.

"Yes, my dearest folks, we are indeed doing the world's work over here, and I am in it to the finish."

The Writer

"That is a magnificent letter in the height of character, the earnestness of thought, the steady strength of mind and heart it reveals," says the Observer. "None of us can read it without being moved and fortified. That phase about 'honorable advancement for my own soul' is one that deserves never to die. Rarely has the cause of the Allies been vindicated with more moral force; never was that cause sealed by a purer sacrifice."

Now for the story of the 24 years which went to the making of Second-Lieutenant Harry Butters, American citizen of California, and officer in the British Army.

"He has laid down his life for England, the country he loved next to his own and for the Allies' cause he held to be the best and greatest that had ever been at stake in the world. At the age of 24 he was killed on Thursday night, August 31, by the same shell that killed his battery commander. He was no ordinary man.

"As his example and purpose are better understood, his memory will win more than a passing thought from many on both sides of the Atlantic who never knew him. Those who did know him on this side mourn with deep sadness his early death, and will always hold him in mind with affectionate pride. He is to be honored not only like our own, but with especial gratitude. Our own boys go forth in a temper that makes dross of all careful egotism in respect of their safety or any other personal interest. But they go forth in duty.

This American Boy

"This American boy—and what a straight, upstanding pattern of youth and strength he was—owed us no duty and he gave us all. He gave it not impulsively nor in adventurous recklessness, but with a settled enthusiasm belonging to 'the depth and not the tumult

of the soul.' How much he gave is worth considering. His personal endowments and opportunities were such that when he made up his mind to quit everything in his bright California and to come into the war, his choice was heroic in the fullest sense of that word.

"Born in South Africa, where his family had business connections, he was the only son of the late Henry Butters, of Alta Vista, San Francisco, who had large interests in mines and railways. He was the nephew and heir of the well-known mining engineer, Mr. Charles Butters, who is still resident on the Pacific slope. The boy who was to die in action as a British officer was educated at first in California, but then came to England and went to Beaumont College, Old Windsor. There he learned to know the meaning of England, her scenes, her history, and he was enchanted. He was devoted to his school. That devotion, one thinks, played its part in bringing him back when he thought that the old land was in the fight for all her centuries; that she, too, might have kept out of it, but that her cause was pure and glorious, that her entry into the struggle was a saving decision in the everlasting choice between right and wrong.

The Choice

"When he went back to America he was a young man of mark, framed to excel both in sport and affairs. He was

very tall, supple, active, frank and comely of face, as gay as he was good-looking. You saw by a glance at his hands that he had a born instinct for management and technique. He had been a good deal at sea. He knew all about horses and motor cars. He was a crack shot and a fine polo player. His business ability was shown as soon as he took over the management of his father's estates.

An American Citizen

"Like so many of our own young soldiers in their attitude towards politics, he was not content with either of the old parties in the United States. He thought that his own generation, if it was earnest enough, might make a better hand both of social problems and world relations. He hoped to play his part. Though he always thought of himself in a fine spirit as 'an American citizen,' he wanted the United States to take a full share in the wider life of the world, and especially to work as far as possible for common ideals with the whole English-speaking race.

"So when the news of the war came to San Francisco he put aside as fair a prospect of wealth, success, happiness and long life as could well open before a young man, and determined to throw in his lot with the old country and the Allies in the fight for civilization against all the armed might of lawless iniquity which had flung itself on Belgium.

"He was then 22. He arrived in England in the early part of 1915 to join the British Army, and no military eye could doubt that the British Army had got a rare recruit. Harry Butters got his first commission in the 11th Royal Warwickshire Regiment. Afterwards his technical faculty found more congenial scope when he transferred to the Royal Field Artillery.

"When he went to the front last year he saw heavy fighting in the British offensive of September, 1915. He described that action with graphic directness in a long letter which was printed in the San Francisco Argonaut last January.

"In it to the finish" "His Captain writes after his death: "He was with his guns and no one could have died in a nobler way. . . . He was one of the brightest, cheeriest boys I have ever known, and always the life and soul of the mess. . . . We all realized his nobility in coming to the help of another country entirely of his own free will, and understood what a big heart he had. He was loved by all."

"He is 'in it to the finish' indeed with comrades of his adoption who have passed with him," adds the Observer. "He takes his last sleep out there with so many of the brave and true, where none was braver and truer than he, and amongst the recollections of the great war his name will not be forgotten. In our thoughts the flags of Britain and America cover his heart with double honor. We shall never see them entwined again without thinking of him.

"No American can read these lines without being proud of him. No Briton can read them without feelings deeper, more moved, than can be said in any words. We are grateful, as he would have liked, to his America that bred him. We are grateful to his 'dearest folks,' though they were not all with him in his course, for no man could be what he was without being the scion of a strong stock.

"Saying 'Come'"

"Since he came from California, what epitaph can compare with these verses of Bret Harte, which might have been written for Harry Butters and never suited better the life and death of any

BOYS—ATTENTION!

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Californian of them all, though it is a gallant State:—

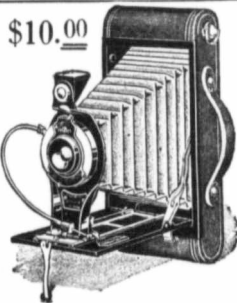
"Hark! I hear the tramp of thousands
And of armed men the hum;
Lo! a nation's hosts have gathered
Round the quick alarming drum—
Saying, 'Come,
Freemen, come!
Ere your heritage be wasted,' said the
quick alarming drum.

"Let me of my heart take counsel;
War is not of life the sum;
Who shall stay and reap the harvest
When the autumn days shall come?'
But the drum
Echoed, 'Come!
Death shall reap the braver harvest,'
said the solemn-sounding drum."

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John Travers Cornwell, V.C.

One of the most heroic of our Brave Boy Scouts



JOHN TRAVERS CORNWELL, V.C.
"A finer example of heroic endurance, of British pluck and devotion to duty is not found even in the annals of the British Navy."

One of the very bravest deeds of the war that is to say of those which have been seen by men who have lived to describe them—was that of the humble sailor boy of East London, who met his death doing his duty in the great sea fight off the coast of Jutland.

John was a Scout before he joined the Navy. He was a member of St. Mary's Mission Troop, East Ham, London. He joined the Navy in August, 1915, and had only been at sea a few weeks when the battle of Horns Reef took place. He was on board the "Chester," and died of the wounds which he received early in the battle.

Sir David Beatty, in his dispatch, says of him: "Boy (1st class) John Travers Cornwell of 'Chester' was a mortally wounded early in the action. He nevertheless remained standing alone at a most exposed part, quietly awaiting orders till the end of the action, with the gun's crew dead and wounded all around him. His age was under 16½ years. I regret that he has since died, but I recommend his case for special recognition in justice to his memory and as an acknowledgment of the high example set by him."

The captain of the "Chester," in writing to Cornwell's mother, says of him: "His devotion to duty was an example for all of us. The wounds which resulted in his death within a short time were received in the first few minutes of the action. He remained steadily at his most exposed post at the gun waiting for orders. His gun would not bear on the enemy. All but two of the ten crew were killed or wounded, and he was the only one who was in such an exposed position. But he felt he might be needed—and, indeed, he might have been. So he stayed there, standing and waiting, under heavy fire, with just his own brave heart and God's help to support him."

For this act of heroism—which has added to the achievements of Scouts during the war—the chief scout has awarded the Bronze Cross to commemorate Cornwell's splendid example to the brotherhood of fearlessness in the presence of death. This is the highest honor which can be conferred on a Scout by his comrades, and the highest honor his King can confer in recognition of the boy's heroic conduct—the Victoria Cross—is now in the keeping of his mother.

Words are futile to express our admiration of an example such as this and the keen regret one feels in the circumstance that the brave lad was not spared even a little while to wear that unique token of the homage of his King and country.

But some noble souls speak far more effectively to us from their coffins than

if they had lived on, and the memory of this brave lad will be perpetuated in every way in which a grateful country can preserve it. Here is the message of our Chief Scout:

"We all want to do honour to Jack Cornwell, the boy hero of the great fight in the North Sea, and to remind ourselves and our brother Scouts after us that he was a Boy Scout.

"We might put up a statue or a brass plate, but that would not keep his memory alive.

"That is what we want to do—to keep his memory alive.

"The best way for doing this is to hold his example before our eyes, and to try to live up to it.

"So I propose to have a badge for those to wear who like to follow up this idea, and I ask all Scouts who agree in honouring Cornwell to subscribe what they can, from a penny to a day's pay, to raise a fund which will enable the best 'Cornwell Scouts' to get educated for a useful life after leaving school. In this way the memorial will be of a Scout, by Scouts, for Scouts. Will you help it?"

"Robert Baden-Powell."

It will also interest our Western boys (whether they are Scouts or not) to know that one of our greatest living painters is now engaged on a picture which will, it is believed, prove to be a very striking and faithful reproduction of the scene and circumstance of Jack's noble act of sustained devotion. The elder brother of our hero (to whom he bears a striking resemblance) is being used as the living model by the artist, and we will be sure to obtain the first impression we can obtain of the picture for these pages.

THE DUKE'S FAREWELL

Officers and Members of the Boy Scouts Association throughout Canada—

As the time draws near for my intended departure from Canada, I desire, as Chief Scout of the Boy Scouts Association of Canada, to express my best wishes for the continued success of the movement which is doing so much for Canadian boyhood, and the highest ideals of Dominion citizenship. It has been a great pleasure to me to meet so many of those connected with the work in the different provinces of the Dominion, and as president of the parent association in the United Kingdom, I shall always continue to follow with the greatest interest the future of the Canadian Boy Scouts Association.

I wish to thank all those who have so liberally contributed their time and means towards the organization and maintenance of troops and local associations, and also to the Canadian General and the several Provincial Councils.

The one outstanding need of the movement at this stage is increased adult support. There is no slackening of interest amongst the boys, but, owing to the departure of so many scoutmasters to the front, there has been a serious depletion of qualified officers throughout the Dominion. Any individuals willing to assist in this worthy cause should communicate with the local officers of the association who will be glad to make all possible use of their services.

In bidding farewell to the Boy Scouts of Canada I cannot too strongly impress upon them their watchword: "Be prepared"—for the future as you have been for the present and past.

Rest assured of my continued and warmest interest in your future welfare, and

Believe me, yours very sincerely,

Arthur,

Chief Scout of Canada.

20th September, 1916.

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Baking Powder

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You will like this recipe:

QUAKER MUFFINS

2 3/4 cup rolled oats
1 1/2 cups flour
4 level teaspoons Gold Standard Baking Powder
1 1/2 teaspoon salt
1 cup scalded milk
1 egg
2 tablespoons melted butter
3 tablespoons sugar

Turn scalded milk on rolled oats, let stand five minutes; add sugar, salt and melted butter; sift in flour and baking powder; mix thoroughly, and add egg well beaten.

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OUR WOMEN FOLK

CONDUCTED BY
PEARL RICHMOND HAMILTON

RECIPES FOR SUNNY HOURS

"She serves her country best
Who lives pure life, and doeth righteous
deed,
And walks straight paths, however others
stray;
And leaves her sons, as uttermost bequest,
A stainless record which all men may
read."

Let us learn to laugh a bit
As the rapid seasons flit.
We are tangled in our troubles till they
seem the whole of it.
But the world's a pleasant place,
With the sunshine on its face,
With the blossoms of the bosom of the
garden and the meadow;
Daisy-clumps the pathway lining,
Honeysuckle vining, twining;
When the sun leaves off its shining, it is
pleasant in the shadow!

Tis a curious fact, but past all doubt,
That the more of happiness one gives out
The more he has left and the more his
powers,
As the gardener strips a bed of flowers
That more shall bloom. So strip your
soul
That another's happiness be made whole.
And lo! in the quick-winged second after
'Tis filled with the blooms of love and
laughter.

Sunshine is delicious, rain is refreshing,
wind braces up, snow is exhilarating;
there is really no such thing as bad
weather—only different kinds of good
weather.

And ye shall succor men;
'Tis nobleness to serve;
Help them who cannot help again:
Beware from right to swerve.

Formed on the good old plan,
A true and brave and downright honest
man!
He blew no trumpet in the market-place,
Nor in the church with hypocritical face
Supplied with cant the lack of Christian
grace;
Loathing pretense, he did with cheerful
will
What others talked of while their hands
were still.

If one had a heart like a little child,
Tender and innocent and mild,
And could see the world through a joyous
mind,
Gentle and pure and sweet and kind,
There were then no sorrow and passion
wild,
If one had a heart like a little child.

What's the use of always fretting
When the joys you want slip by,
What's the use of getting
Glum of lip and dull of eye?

What's the use of moping
When your skies are dark and gray?
Does it help you in your groping,
Does it ever smooth the way?

Life, to be worthy of a rational being,
must be always in progression; we must
always propose to do more or better than
in time past.—Samuel Johnson.

How do you make a Sunny Hour?
Just take some right good will,
Some love, some trust, and faith as well,
Enough to fairly fill

A good-sized heart—and you will find
There's still some room to spare
For impulse which will prompt kind words
And actions, here and there.

Mix all together with a smile
That's spiced with willingness,
And daily use of this, my friend,
Will help you to confess
That whosoever you may seek,
You'll find no recipe
Like this, to make a Sunny Hour,
Wherever you may be.

When the cares of life are many,
And I have to bear their load
Over long and lonesome highways,
Or along an uphill road,
I have found the burden lightened,
And the way seems not so long
If I set the echoes ringing
With a bit of cheerful song.

THE HOUSE
The cornerstone of Truth is laid,
The guardian walls of Honor made,
The roof of Faith is laid above,
The fire upon the hearth is Love;
Though rains descend and loud winds call,
This happy house shall never fall.

Our years are as moments only; our
failures He counts as naught;
The stone that the builders rejected, per-
chance is the one He sought.

Mayhap in the ultimate judgment, the
effort alone avail,
And the laurel of great achievement shall
be for the man who fails.

What is failure? It is only a spur
To the one who receives it right,
To make the spirit within him stir,
To go in once more and fight.
If you never have failed, it's easy to guess
You never have won any high success.

I find the great thing in this world is not
so much where we stand, as in what
direction we are moving; to reach the port
of heaven, we must sail sometimes with
the wind and sometimes against it—but we
must sail, and not drift nor lie at anchor.

If the day be dark and dreary,
Look for sunshine.
If you are feeling sad and weary,
Look for sunshine.

You'll always find a path of blue,
Where the sunshine sparkles through,
If you look for sun-shine.

Friends are falling every day
For lack of sunshine.
Help them up along the way,
Show them sunshine.
If you help the world in seeing,
You are always sure of being
In the sunshine.—Anon.

All true work is sacred; in all true work,
were it but true hand-labor, there is some-
thing of divineness. Labor, wide as the
earth, has its summit in heaven.

"God send these singers upon the earth]
With songs of sadness and of mirth,
That they may touch the hearts of men,"
And bring them back to Heaven again."

WOMEN AS WEALTH PRODUCERS

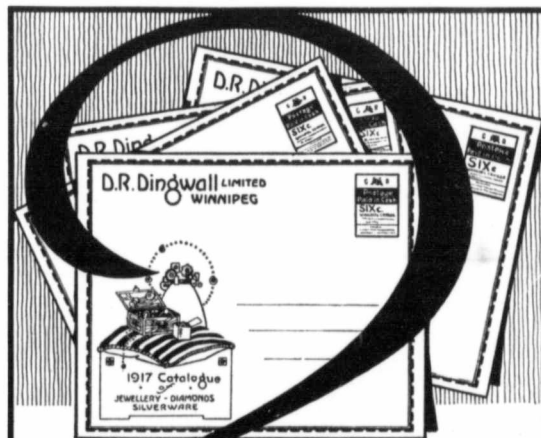
"Women have found their level in the
modern world—the level of human
equality with men. And men have
found their level of equality, and have
not hesitated to admit it," says Mrs.
Pethick Lawrence in Votes for Women.

"Hence arises the demand of a re-
awakened and reunited democracy for
the political enfranchisement of all men
and women. Can the actual revolution
that has already taken place in popular
thought and in national custom be
translated into the political arena by the
enactment in the immediate future of a
comprehensive measure of franchise re-
form, which will give the vote to all
adult women and men? Upon the
answer to this question depends the so-
cial and industrial welfare of the popu-
lation of this country.

"It is absolutely essential in the in-
terests of men of the industrial classes,
as well as in the interests of women
themselves, that women gain their en-
franchisement before the period sets in
of reconstruction after the war. For, if
the enfranchisement of women be de-
layed, even for a few years, the same
irretrievable mistake from the point of
view of the workers will be made as
was made at the close of the Napoleonic
wars.

"A hundred years ago machinery as
a wealth-producing power was discov-
ered. Machinery was utilized to make
good the destruction that the war had
wrought. But the wealth made of ma-
chinery was not inherited by the masses
of the people, but was turned into a
new means for the enslavement. The
discovery of women as a wealth-produc-
ing power is as great a portent for the
human race as was the discovery of ma-
chinery. The workers tried to limit the
application of machinery to industry.
But they failed. They will fail to limit
the application of this discovery of wo-
men. You cannot put back the hands of
the clock. You cannot repress power
that has once been evolved.

"But a united democracy can use all
wealth-producing power, and all wealth,
in the interests of the whole community,
and for the advancement of the whole
human race. The opportunity which
now offers itself to a united democracy
is the demand for the enfranchisement
of all men and women. It is an oppor-
tunity which should be seized by all
democrats, all lovers of their country,
and all well-wishers of the human race."



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A WOMAN'S TALK TO WOMEN

Continued from page 16

as to the qualification of voters; and how to register for the provincial franchise. Also, it gives full instructions in regard to the municipal franchise. This leaflet may be obtained from any Equal Franchise Board or The Women Grain Growers of the province.

It is important that the women should be informed on this matter, for the temperance referendum to be taken in that province soon is an important one. Also the municipal elections soon take place.

Will Polygamy Help Europe?

The above is the title of an editorial in Ainslee's Magazine for October. It is rather significant that a magazine of the standing of Ainslee's should seriously consider the question of plural wives. The writer points out that in Germany after the Thirty Years' War, there was government sanctioned and protected polygamy, and there are at the present time people in France, Germany and Russia who wish the same thing established, in order to overcome the great loss of young men in the war. This writer points out that Schopenhauer once said that every normal man desires more than one wife; while Schlegel scathingly denounced plurality of wives as pandering to animal appetite.

The editorial ends with the following paragraph in which the writer has a glimpse of the true state of the mind of the real feminist. He says:

"But to return to the European situation which opens up such revolutionary social vistas, it is one of those ironic and ever-present paradoxes of life that the feminists should have invaded and captured Turkey, the very stronghold of polygamy, just when the problem of female preponderance looms large upon the horizon of the Western world. Polygamy has an arch-enemy in the feminists, who desire above all things to be emancipated from male supremacy; and there is no custom that bespeaks male supremacy so absolutely as plural wives or multiple concubines. Polygamy makes polyps of women, say the feminists. And this brings us to the hub of the whole present difficulty: How will England, France, and Germany dare attempt anything resembling polygamy with the emancipated woman irrevocably opposed to it? In analyzing the altogether peculiar phases of this paramount question, Ellen Key, the famous Swedish philosopher, predicts that there will be precipitated an epochal struggle of the sexes."

HE PASSED ON

The medical doctor, passing along where a workman was building a stone wall, and thinking that too much mortar was being used for a good job, remarked:

"Mortar covers up a lot of mistakes; doesn't it?"

"Yes," replied the mason, "and so does the spade."



HOME MEMORIES AT HELL'S MOUTH

"Recollect that night you an' me an' old Turniptops wiv 'is mouth-organ in the Whitechapel Road?"

"Rather—I should think I did."

"Well, 'ow did that tune go?"

THE VALUE OF THE BOY TO THE STATE

By Revd. A. T. Macintosh, Provincial Secy. (Manitoba) Boy Scouts

Twenty centuries ago the question was asked of the leaders of that day, "How much is a man better than a sheep?" That question was asked by the greatest educationalist that the world has ever known, and the question is still a pertinent one. There is no question which demands a more serious consideration in our day than does this. When it is viewed in the light of the future rather than in the light of the present or past, it takes on much more gravity, and offers a limitless field of investigation.

These strenuous days in which we live have seen the maximum value, from an economical standpoint, put upon a man. It is only a few years ago that the economical value of a man in the United States of America was \$600, in the Dominion of Canada \$1,000 and whatever may be the rate of increase of the value of a man in the United States of America or elsewhere in the world, in the Dominion of Canada and throughout the British Empire that value has been more than doubled.

By What Standard?

There are various standards by which the value of a man or a boy may be determined. There is the standard of the merchant who judges the man by the value of his clothes; there is the commercial man, who judges the man by his bank account; or, there is the real estate man who judges the value of his neighbor according to the acreage that he possesses. To a certain type, none of these standards appeal, the value of a man being decided by his possession, or lack, of ancestry or blue blood. Again we find man being valued as to his nationality or place of birth; and many contentions are being waged around this theme. One effect, however, of the present world crisis has been to emphasize the fact that neither clothes, nor money, acreage, nor nationality, are the ultimate or deciding factor in the rendering of a judgment as to the value of a man, destiny alone having reserved for it that important quality. Hence, not the history of the past, nor the opportunity of the present, but the possibility of the future, is the great factor in deciding the value of the boy, for, as Kitchener has prophesied, "What the country will need most of all is men," not haberdashery, not acreage, not pedigree—but "fellows with manliness and character." Thus it was that when many were urging upon Sir Robert Baden-Powell to take up cadet training in the Boy Scout movement, Lord Kitchener, who was the eye of the Empire, said "You are building the foundation which is essential for making good men. Whether they afterwards become soldiers or civilians matters little; but character to either means everything."

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The Cost of Production

Another factor which enters into our computation is the cost of production. What does it cost the state to produce the type of man that is wanted to-day, and the higher type that will be wanted in the future? To-day, more than at any other time in the history of the world, greater care and better attention are being given to education, and while it is true that the state is increasingly interesting itself in this sphere, it is also true that much remains to be done if the future is to be amply provided for. Thousands of dollars are being spent an-

nually by governments in fighting hog cholera, hundreds of thousands are being spent in protecting the trees from the attacks of beetles, aphides and canker-worms, millions are being spent in the protection and preservation of plants and animal life; but careful investigation will show that as yet not much is being done to prevent the great industrial diseases, to protect the children and youth from physical and moral filth, or to reduce the annual slaughter of the innocents in the great centres of industry.

On the one hand, the government,

through its educational activities, is recognizing the increasing value of the child to the state; on the other hand, by regrettable oversight, the life of the child physically and morally, is not being preserved as it merits. When we add to this the fact that has been proclaimed by some of the leading medical authorities of the day, that the birth of males is on the increase, we have a situation presented that calls for the most serious consideration, and leads us to the conclusion that the most valuable asset to the nation to-day, is not only the child but "the boy."

Rosebery on Character

Lord Rosebery, the eminent British statesman, has declared that "the success of a nation depends not so much upon its armament as upon the character of its citizens. We are numerically a small nation. From a patriotic point of view, then, it behooves us that we should not waste a single man but that all should be efficient. Our worst enemies are not foreigners outside, but inefficient inside our own country. Then, if we regard the question from a Christian point of view, can we stand by with a clear conscience and see so much waste of human life going on around us, when with a little extra work on our part it might easily be prevented in the next generation? Prevention is better than cure. In the Scout movement we are trying to prevent the present human wastage in the next generation, and to make every single boy into an asset for the nation. If I were to form the highest ideal for my country it would be this—that it should be a nation of which the manhood was exclusively composed of men who had been or who were Boy Scouts, and who were trained in the Boy Scout theory. Such

a nation would be the honor of mankind. It would be the greatest moral force the world has ever known."

Judge Alban Blair, of Portsmouth, has said, "The Boy Scouts are the one asset of the city above all others that should be encouraged and given the proper chance to develop. As these boys progress, so will Portsmouth progress, not only to-day but in years to come."

More than "Fighting" Value

Ex-president Roosevelt, in a recent article in "The Outlook," says: "Perhaps it is too much to expect that the time will come when every public and private school in the United States will have a Boy Scout organization connected with it. It is, however, an ideal to be hoped and worked for." After quoting the Scout law, he goes on to say: "An organization which is cultivating those qualities in our boys is performing a national work of the best kind of patriotism." In another part of this journal the ex-president writes: "The Boy Scout movement is distinctly an asset to our country for the development of efficiency, virility and good citizenship."

Sir Robert Baden-Powell, the founder of the Boy Scout movement, has rendered the following as his judgment: "In my mind the boys of the country have a very definite place in the war—in the war that comes after this war—namely, in the struggle for industrial and commercial success which is going to raise our country out of the havoc brought about by the existing crisis, and which will consolidate for us to-morrow, the results of victories won by our men in the field to-day, and will compensate for our losses. That war will be going on for the next ten or twenty years and will be won by the country whose citizens are then the best equipped in spirit and ability for their great work. To this end all our energies should be concentrated on training the rising generation to the fullest possible extent in individual character, technical efficiency, physical health. With this foundation they will make efficient citizens and equally, if need be, the most efficient soldiers. But to dress them up in khaki and to teach them to play at soldiers under the allurement of the existing war fever is, to my mind, to trifle with a very serious situation and with a very big national opportunity."

Man is not so much a worker as a thinker, and the results of man's thought are ever enriching the world. Thus, while to the past we may owe all that we have, to the future we owe more, namely, all that we can give.

Man More Than Physique

Evolution has shown us the enormous value of the individual—considered as nothing more than physical being, but man is more than mere physique, he is the sum and product of countless ages of toil and development, while as a product of the past, man has an ever enhancing value, as the representative and keeper of generations yet unborn, his value is increasing infinitely.

The past of the British Empire and its citizens has been great; the present is rich with opportunities of service; and the future holds untold wealth of possibility and responsibility. The past has given us our experience, the present finds us working out our salvation, and the future holds all our glorious hopes.

Our heritage from the past is of great value; our life in the present is of greater value; but greatest of all is our obligation to the future of our nation and race. The greatest crime that man can commit is to "despise the little ones," and man's greatest debt is what he owes to the child, and only in discharging this debt in the future, does he discharge his full debt to God and man.

The Daughters of the Empire have a great opportunity, a glorious privilege, and an enormous responsibility to mother the boys of to-day—the men of to-morrow. May their eyes see and their hearts warm towards those boys in the present and future to whom God and man are beckoning from among the British peoples to act as leaders and guides of human destiny.

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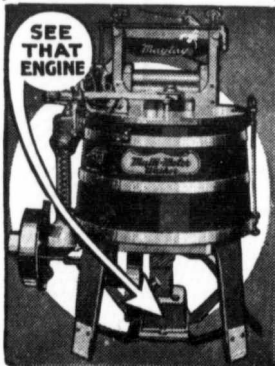
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THE GOLDEN YEARS OF LIFE

By Pearl Richmond Hamilton

A little child is quick to trust, quick to forgive, quick to serve. The small feet run willingly on errands, the small hands tug at tasks too big for them, the child, often wounded by thoughtless criticism, often misunderstood by the duller adult, often unjustly punished, is swift to pardon injury and is utterly incapable of malice.

How often I hear women say to me: "These are your happiest years, when your children are small and you know where they are. They belong to you now. When they are grown they belong to the public."

Then the golden years of a woman's life is when her children are young. During the first seven years of a child's life God and the mother and father have the child to themselves.

Our little ones live in a very narrow world. They are hearing what we say, they are observing what we do. They are absorbing our manner and our thoughts. Their whole life story is in the mother's hands.

The other day a judge criticized a mother for being careless with her daughter. Perhaps some thought he was unjust, but when one sees mothers who live in extremes one wonders how some children are as good as they are. Just now when so many fathers are serving our country the burden of family discipline falls doubly on the mother and we find some of our sixteen year old girls and boys unruly and determined to go their own way. I think the records will prove the truth of this statement. The true mother trains her children to obey, lovingly and continually, not by penalty, not by perpetual nagging and fussing and a hail storm of don'ts on childish heads, but by firmness, by sweetness, and by consistency and calmness. Her unbroken self-control is the children's refuge and shelter; her authority always felt is never expressed in threats and harshness. Girls so often tell me that they can get along at home when their father is home but when he is not there they simply cannot get along with their mother.

"I've one friend—Daddy likes me!" exclaimed a little girl the other day after her mother punished her.

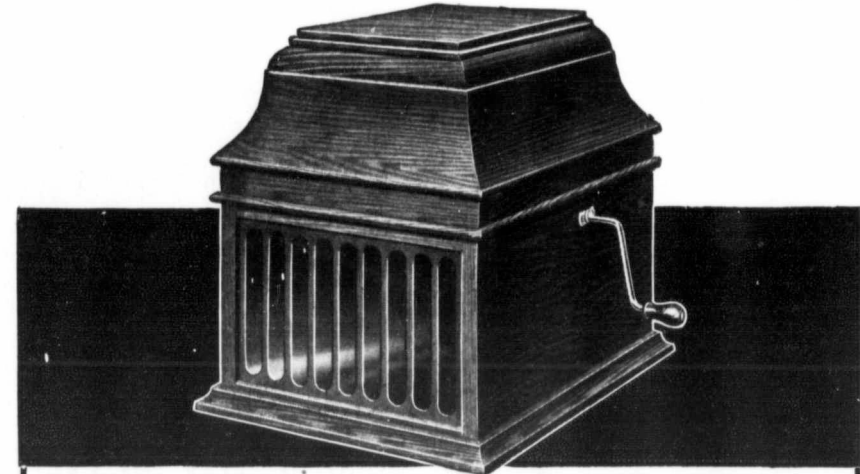
Margaret Sangster says: "After all, each woman must be a law unto herself, and the ultimate comfort of every one is, that the Lord still says to the baby's mother, "Take this child and nurse it for me and I will give thee thy wages." As our Lord's mother, heard a voice saying, "Blessed art thou among women," so may every expectant mother hear a sweet voice in her soul, and over every crib she spends the golden hours of her life.

Every woman who does a mother's work in this world whether or not she bear babies, may experience golden hours. Some of the best "mothers" are not "physical" mothers but "soul mothers." They possess the mother-heart. A teacher cannot perform the duties of her high office as she ought unless she possess the maternal spirit. An elder sister often has the mother-heart. The woman who works for the welfare of women has the mother-heart.

The physical mother's heart should be hallowed and pure. Of old, Hannah prayed, and God gave her Samuel, a child consecrated from his birth. Read the story of Samuel, and learn how his whole life was a testimony to the faithfulness of his mother, and to her dedication of him from the earliest life throbs. In a babe's hands lies the destinies of nations, Alexander, Caesar, Napoleon, Kitchener were once infants in mother's arms.

A mean, petty, selfish, vain mother will impress those traits on her child; he will draw them in with the milk which feeds his early life. He will inherit them.

Douglas Durkin in an article recently published in the Free Press relates two illustrations that prove the value of good pure motherhood. He says: "A few years ago the genealogy of a feeble-minded girl in an institution in the New England states was traced back eight generations. Casper Kalilikak, the name is only a pseudonym, died in 1735, and was followed by three generations of worthy offspring whose reputations for honor and respectability were unassailed. Casper's great grandson, a young soldier of the Revolution, while billeted at a tavern, met a feeble-minded girl and by her became the father of a son. The son bore



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his father's name and handed it down to posterity. After the war the young-soldier married a normal girl of good parentage. From this second mating 496 individuals have come in direct descent, all but three of whom have been thoroughly desirable citizens. Among them have been doctors, lawyers, judges, educators, traders, landholders; all men and women of prominence in social life. In the meantime the son of the feeble-minded girl in the tavern grew to manhood and married. From this branch 480 direct descendants have been traced. Only 46 are known to have been normal; 366 were illegitimate, about 30 were prostitutes, 24 were confirmed drunkards, 82 died in infancy and eight kept houses of ill fame.

Miss Gertrude Dobson, secretary of the bureau of social research, has been engaged in the investigation of conditions touching the mentally defective in the prairie provinces of Western Canada. In the above mentioned article is this illustration among her investigations: "One family studied came to Canada in 1904 and settled in the north end of Winnipeg. The mother, though of good family, was mentally defective; the father was a remittance man, a drunkard and a moral degenerate. When they arrived they settled with their five children in a little shack at the end of a street where they lived in awful squalor until they were thrown out by the landlord. Thereupon the father promptly deserted the family, leaving the woman with a small baby. For some time she lived on her earnings as a washwoman and then she went to Elmwood, where she has been living with a man to whom she has never

been married. In all there have been seven children in the family. The oldest, a boy, ran away and has never been heard of since. The next, a girl, after having been placed in more than twenty homes, was finally committed to the Salvation Army industrial school in Kildonan. She was a moral degenerate and gave birth to a child shortly after entering the school. The next child, a boy, is in the industrial school at Portage la Prairie, after a lengthy record in the juvenile court. Another boy is a thief who is being watched by the authorities. Still another is in the Home for Incurables, simply because there is no other place for him. The youngest child, a little girl, is at present in a foster home."

When we realize that the condition of the mind of one woman is of so much importance, we must be convinced that it is

a patriotic duty for every girl and woman to use all possible means to improve herself mentally, morally, and physically. Since the best of British blood is flowing so freely on the battle fields of France the production of a clean strong race is the greatest national problem. For the sake of our nation, let its motherhood be noble.

"If on our daily course, our mind Be set to hallow all, we find New treasures still, of countless price, God will provide for sacrifice."

GRANDMOTHERS

In the hurry and worry of these restless times we write so much to the young and have little to say to grandmother. We do not forget her but we have come to realize that "grandmother" is as young as the rest of us. Grandmother is not in a corner knitting alone—we're all knitting with grandmother these days even to little seven year old Dorothy.

Then grandmother is as interested as are we in affairs of to-day and her rich fund of experience makes her a magnet that draws us to her for advice.

Grandmother to-day is president of the most progressive club of the community.

Grandmother is interested in child welfare. Ruth's first-born was Naomi's as well as her own, and Naomi's never die out of the world. We agree with Margaret Sangster who said: "A winsome girl is charming, a winsome matron is captivating, but the coronation of womanhood is laid on the brow of the winsome grandmother."

We have harvested our grain, the fruit has been gathered and we are waiting for Indian summer when the earth rejoices in the glory of fulfillment. Let us in our lives remember the lesson of the Indian summer. I put an advertisement in a local paper for a woman to take care of children two evenings a week. I am glad I did for the privilege I had of meeting some dear old ladies with beautiful faces. Grandmothers answered that advertisement. Every one of those dear women said: "I am more active than you might judge from my age. But I can really be very useful." "Of course, you can," I replied; "I wish I could take every one of you. You are in the prime of life in-so-much as genuine usefulness is concerned—the Indian summer of life." I am absolutely sure that some of those grandmothers "ran away" from their grandchildren to apply for that position. I have a weakness for "runaway grandmothers." There is a certain mischievous twinkle that emphasizes: "I am as ambitious as any of you."

Somehow these dear grandmothers have a corner on spirituality—the kind that blesses—

"As some rare perfume in a vase of clay Pervades it with a fragrance not its own, So when God dwells in a human soul, All heaven's own sweetness is around it thrown."

Oceans of love to every grandmother who reads this department!—P.R.H.

THE GIRL IN HER TEENS

By Pearl Richmond Hamilton

During my days as a school teacher we noticed one year a very serious condition of familiarity among the boys and girls

of the high school. The girls wrote filthy notes to the boys and they in turn reciprocated until the parents took the matter up with the superintendent. As a result the superintendent asked me to take

the girls in hand and he would take the boys.

That I had a most difficult undertaking, I realized but determined to "clean house." Soon after my resolution one of the girls came to me with this complaint: "The boys laugh when I pass them and are as rude as they can be." That day I asked one of the boys why Maud was treated with so little respect?

"Food," she ain't worth any kid's respect!" he exclaimed. "We treat Louise all right, don't we? There ain't a kid in this whole school who wouldn't break his neck to get a chance to tip his hat to her. Louise is some girl, I tell you," the lad continued. Food for reflection—I thought. I remembered Louise—a perfect girl it seemed to me—always gentle, polite, dignified and lovely.

"But why," I asked, "do you think Maud is not worth your respect?"

"Well she writes us such rotten notes and she doesn't care what she says to us." "Will you let me see some of the notes?" I asked.

"Oh, I'd hate to have you read them. They're—well they're not respectable."

"Now my boy, I want to read them for a purpose. May I have them?" I asked.

The lad finally consented with the remark that they were not "fit stuff for the like of me to read."

When I read the notes I was amazed. It seemed as if the girls had only a vulgar interpretation of the most sacred things in life—and what knowledge they had they imparted to the boys in these notes most freely. I could scarcely believe it possible that girls would write such filthy notes. That very week a mother while mending the coat of her fourteen-year-old boy, found some notes in the pocket. They were written by a thirteen-year-old girl in the school. The father handed the notes to the superintendent. For a few days we studied the situation seriously. Even leaves were torn from my Shakespeare in places where the author spoke plain English. Then I asked all of the girls to remain after school. When we were together I asked them to forget for an hour my position in the schools—for that hour I was a big sister. Then in a kind sincere friendly gentle manner I had a heart to heart talk with them. I told them what their mothers should have told them—about themselves—the sacredness of their body, the beautiful story of life and the awful penalty for abusing the privilege of beautiful girlhood. We were very near one another for that hour—we seemed to feel a spiritual atmosphere. They realized that I loved every one of them and they asked questions and we all discussed problems of a girl's life freely. There



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were few dry eyes when the girls left the room but there was a transformation in the faces that expressed a new light as the girls passed out. For several days a serious quiet mood charged the atmosphere of the school room. Letters of gratitude and verbal words of relief came to me from the mothers with the general remark that I had told their daughters what they had long wanted to but could not, and I feel that those girls changed the moral condition of that school. This is merely an experience. Perhaps it may help others. It happened fourteen years ago. But I believe girls and boys are as human now as then. We older women forget what we thought about in the early "teen" age.

Home Economics and Home Makers' Clubs

After the summer's rush of work in rural communities we are entering with new zest on our club work. Agricultural colleges are enrolling more than ever before. "The New Learning" is home-making.

Home-making is a business now—and we women are eager and hungry for every help possible. We know that more than ever is our patriotism centered on building strong home foundations and community centers. We want this department to be alive with reports, papers, ideas and suggestions from the Home Economics and Home-makers' clubs. Send us more than we can publish and we will use the cream. There are over one hundred societies in Manitoba and even more in Saskatchewan. These women are anxious to know what their sister societies are doing. Let us make this department a real help for the coming year—one we cannot afford to be without. Let us help one another with ideas about housework, care of children, sick-room suggestions, community improvements—in fact any item of interest that will make us grow.

Lavinia H.E.S.

One of the most enjoyable meetings in our district of the H.E.S. was held at the lovely home of Mrs. James Knight on Tuesday, July 18th, at which a large number of members were present.

The meeting opened with the "Lord's Prayer." After the usual business was discussed, Mrs. Wm. Stevens gave a paper on, "The Teacher in Our Community." She told us how we were to use the teacher. We must not expect too much from our teacher; some days she may feel inclined to help us, on others she may not, so, as a teacher is not a servant, we should not feel vexed if she doesn't help with the dishes some days. Lots of good advice was given to everyone and we hope each and all will be benefited by same.

After the meeting was closed by the National Anthem, a bale of clothes was packed for the Belgians, also a box of bread, fruit and eggs for the Soldiers' Convalescent Home.

The next meeting will be held at the home of Mrs. Jerry Pangman on Tuesday, August 1. Two quilts are to be quilted this day, so we expect a large attendance. J. McConnell, Hamiota, Man. Cor.-Sec. Lavinia H.E.S.

Hartney

After a two-month's summer intermission the Hartney H.E.S. met in the Town Hall, Friday afternoon, Sept. 8th, at three o'clock. This was a very interesting, helpful meeting although the attendance was small. There was a short time spent discussing, "Boys' and Girls' Clubs," and means of helping the club along. A committee was named to investigate ways of helping at the school fair to be held in a few weeks.

After the business session of the meeting the members responded to the roll call by giving helpful suggestions or a tried and proven recipe. "How to hang sheets on the clothes line so as to have them smooth without ironing," "How to wash blankets," "How to put together the filling for a lemon pie," and "How to clarify sugar syrup for canning fruit" were among the helpful hints given.

The members present thought the meeting helpful and enjoyed the social time with the refreshing cup of tea, and light refreshments. O. M. Hodgson.

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HYDE PARK

The Hyde Park Homemakers met at Mrs. McNabb's on Thursday, Sept. 14th, for their September meeting, eleven members being present. The meeting opened in the usual way by singing the "Maple Leaf." The minutes of the last meeting were read and adopted and the correspondence dealt with. It was decided to get some more material and wool to make into garments and socks for the Red Cross. The exhibition which was got up by the Homemakers and Grain Growers was held on September 8th and was a great success. It was well attended and there was a good show of exhibits. The judging was done by Mrs. Archibald, assisted by Mrs. D. M. Finlayson and Professors Tisdale and Bates and J. G. Raynor. An excellent lunch was served by the Homemakers. During the afternoon there were addresses by Mr. D. M. Finlayson, M.L.A., Professor Tisdale, Professor Bates and Dr. Magee. In the evening a very successful dance was held, a good number being there. The committee is to be congratulated on the management and success of the exhibition.

On August 12th, we held a small picnic, a very enjoyable afternoon was

spent and dancing was indulged in until midnight in the school house. Our meeting closed by singing the National Anthem and then all enjoyed an excellent tea served by Mrs. McNabb and her daughter, assisted by Mrs. Harley. Mrs. A. C. W. Dodd, Club Reporter.

Recipes

Toad-in-the-Hole

Beat the egg thoroughly, add the milk, and stir in the flour; the mixture should be like that for batter cakes. Butter well a pudding dish; lay in the chops, sprinkle with pepper and salt; pour over the batter, and bake 1 hour. Or, cut the steak in small pieces, season, stir into the batter and bake. Ingredients: 1 cup milk; 1 cup flour; 1 egg; pepper and salt; 1 pound lamb chops or beefsteak.

A Good Sponge Cake

Separate the eggs, beat yolks until very light, add sugar gradually and continue beating. Add salt, lemon, water, flour,

baking powder; beat well. Fold in the stiffly beaten whites. Pour into a round or narrow oblong tin, which has been lightly greased and sprinkled on the inside with granulated sugar. Bake in a moderate oven. This also makes a very good layer sponge cake.

A larger cake may be made from the same number of eggs by using 1½ cupful sugar, and 1½ cupful flour, ½ cupful warm water and 2¼ teaspoonfuls baking powder. Combine ingredients as directed. Ingredients: 3 eggs; 1 cupful sugar; 1 cupful flour; juice and rind ½ lemon; ½ level teaspoonful baking powder; ¼ level teaspoonful salt; 1-3 cupful warm water. Time: Preparation, 10 minutes; baking, 35 minutes. Number served: 8 persons.

For Cup or Layer Cakes

Cream butter; add salt, sugar gradually, and beat well; add yolks of eggs and beat again. Add milk, flour, baking powder; beat until light. Fold in carefully the whites of the eggs, which have been beaten to a stiff froth, and pour at once into lightly greased pans. Bake in a moderately quick oven. Ingredients: 1-3 cupful butter; 2 eggs; 1 cupful sugar; ½ cupful milk or water; 1½ cupful flour; about 2¼ level teaspoonfuls baking powder; ¼ level teaspoonful salt; ½

teaspoonful flavoring. Time: Preparation, 15 minutes; baking, 20-25 minutes. Number served: Recipe makes 14 small cakes, or 2 large or 3 small layers.

For a delicious fruit-nut loaf, follow this recipe, using two more egg yolks, about one-third cupful more of flour, and one cupful of raisins, sliced citron and chopped walnuts (mixed). Flour fruit and nuts before adding. Bake about 35 minutes.

Fruit Spice Cake

Dissolve the soda in the warm water; add salt, sour milk, cream, molasses, sugar, spices; mix well. Add flour gradually, beating until smooth; stir in the fruit well floured. Pour into a lightly greased round or square pan, bake in a moderate oven. Do not cut for 24 hours. In a clean, tin box, this will keep for days and improve with age. Ingredients: 1 level teaspoonful baking soda; 3/4 level teaspoonful salt; 1 tablespoonful warm water; 3/4 cupful sour cream; 1/4 cupful sour milk; 2 3/4 cupfuls flour, about 1 cupful brown sugar; 1/2 cupful molasses; 1 level teaspoonful cinnamon; 1/2 level teaspoonful allspice; 1/2 level teaspoonful ginger; 1 1/2 cupful seeded raisins; 1/2 cupful sliced citron; 1/2 cupful figs, cut small. Time: Mixing, 25 minutes; baking, 1 hour. Number served: Recipe makes one large loaf.

Apple Roly-Poly

Peel, quarter and core sour apples, make a rich soda biscuit dough, or raised biscuit dough may be used if rolled thin, roll half an inch thick, slice the quarters, and lay on the prepared paste or crust, roll up, tuck ends in, prick deeply with a fork, lay in a steamer and place over a kettle of boiling water, cook 1 3/4 hours. Or, wrap in a cloth, tie the ends and baste the sides together, put in a kettle of boiling water, and boil steadily 1 1/2 hours. Cut across in slices and serve with sweetened cream, or butter and sugar. Cherries, dried fruit, any kind of berries, jelly, or apple butter may be used. With the last two add raisins.

Crab Apple Jelly

Wash and quarter large Siberian crabs, but do not core them, cover to the depth of 1 or 2 inches with cold water, and cook to a mush; pour into a coarse cotton bag or strainer, and extract all the juice. Take a piece of cheese cloth or crinoline, wring out of water, spread it over a colander placed on a crock, and pour in the juice, allowing plenty of time to run through; repeat this process, rinsing the cloth frequently. Allow the strained juice of 4 lemons to 1 peck of apples, and three-fourths of a pound of sugar to each pint of juice. Boil the juice from 10 to 20 minutes; while boiling sift in the sugar slowly, stirring constantly, and boil 5 minutes longer. This is generally sufficient, but it is always safer to ascertain whether it will jelly.

Rhubarb Jelly

Wash the stalks well, cut into small pieces, put them into a preserving kettle with water to cover them, and boil to a soft pulp; strain through a jelly bag. To each pint of juice add a pound of sugar; boil, skim, and when it jellies pour into jars. After the juice has been prepared, the juice of 1 lemon may be added to each 3 pints of rhubarb juice, and half the rind boiled in it for a few moments.

Rhubarb and Apple Jelly

Cut the rhubarb in small pieces and cook over a slow fire, without adding any water; pare, quarter and cook good, sour apples in a very little water; strain the juice from both, measure, and boil 20 minutes. Heat the sugar in the oven, allowing three-fourths of a pint to each pint of juice; add it to the juice, and boil 10 or 15 minutes longer. Pour into glasses, and set it in the sun for a few hours.

Honey Cookies

Cream the butter, add the honey; mix. Add the egg, beaten, and beat the mixture thoroughly. Mix together the flour, soda and aniseed. Combine all the ingredients; mix well. Drop a small quantity from the tip of a teaspoon onto a buttered tin, flatten with a fork, and bake in a moderate oven. Nuts may be added.

Spiced Apples

Select well-flavored, juicy apples, preferably those with a red skin. Wash,

cut into quarters, remove cores, do not pare. Stick a whole clove into each quarter. Fill an earthen baking-dish with the apples, sprinkle liberally with granulated sugar through which a little ground cinnamon has been mixed. Add a spoonful or two of water, and bake in a moderate oven until apples are soft, sticky, and rather dark in color. Serve warm with poultry or lamb in the place of cranberries or jelly.

Chicken and Rice Pies

Butter individual dishes, cover the bottom of each with a layer of boiled rice, add a layer of cooked, diced chicken, then a layer of well-made, nicely-seasoned cream sauce. Now add another layer of rice, chicken and sauce, continuing until dishes are full. Bake in a moderate oven until hot, and tops are brown. If possible, use chicken stock for the sauce.

An Autumn Salad

Wash the apples, dry and polish with a clean cloth. Cut a slice off the top of each. Remove the core and seeds, and scoop out the apple without breaking the skin. Chop the apple very fine. Add to it an equal quantity of shredded cabbage, the nuts, and enough cream mayonnaise to well cover every particle of fruit and cabbage. Mix thoroughly, refill the apple cups and serve on individual plates on a bed of chicory or lettuce leaves. Garnish the top of each with a spoonful of mayonnaise and half a nut meat. Serve very cold. An excellent supper salad to serve with cold meat. Pecan or hickory nuts may be substituted for the walnuts. Ingredients: 6 large red apples; finely-sliced cabbage; 1/2 cupful chopped walnut meats; cream mayonnaise dressing. Time: Preparation, 35 minutes. Number served: 6 persons.

Ambrosia

Peel, slice and seed the oranges, taking out as much of the core as possible, pare and remove the eyes from the pineapple before grating, and fill a dish with alternated layers of orange, pineapple and coconut, sprinkling sugar over each. Or, use 6 oranges, 6 lemons and 2 coconuts, or only oranges and coconuts. Ingredients: 6 sweet oranges; powdered sugar; 1 grated pineapple; 1 grated coconut.

Experience Extracts

If one is short of eggs use cornstarch instead—a teaspoonful for every egg left out. For example—if a recipe calls for three eggs, use one egg if possible and two teaspoons of cornstarch.

After using the fat for doughnuts cut a potato in slices and put in the fat to clarify it.

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Lessons in Cooking

Course of Practical Instruction in the Science of Preparing Three Meals a Day

By Edith Charlton-Salisbury

Not many days ago I heard a woman lay a complaint against the usual run of articles, on cooking and serving meals, that are published in our periodicals. This woman is a good housekeeper, an excellent cook and thoroughly interested in the business of homemaking so her attention to the above-mentioned articles had considerable weight with me, because her opinion may be that of many other women. She said directions for cooking and recipes published in most periodicals are too complicated for the average housekeeper. "The writers who are often experienced teachers and know a great deal about the subject—or think they do—usually write over the heads of their readers and give us recipes for ordinary every-day meals which if we followed them would keep us in the kitchen more hours than we spend there now."

In defense of myself and others who may occasionally air their ideas on cooking in the press I told this accusing housekeeper that the common opinion among us is, that as we generally write for experienced housekeepers we had formed the idea that if we did not give them something new and startling in the culinary art we would not be able to hold their interest and so would fail to make the editors see the importance of our special work.

"You're wrong," she said, "what we don't know and what we want is principles and simple, practical directions for making, in the very best way, those common everyday dishes that we all like better than we like fancy cooking."

And right there I made a promise to myself, which was to the effect, that the very next time I wrote on cooking I would begin at the very beginning and point out all the little things which mean either success or failure; try to make plain all the whys and wherefores and clear away, if possible, some of the bug-a-boos that cause some women to dislike cooking. As this is the "very next time" we will start at "first principles" and follow them right through the science and art of cooking until no one who reads this page in the Canadian Thresherman and Farmer can say directions and formulae have been too elaborate for common use.

The cooking of meals, and the selection and combination of foods, is about the most important work a woman has to do in her home but it should not require all her time for there are other things in life besides cooking and eating. I propose to give a few lessons in cooking through these pages, suggesting simple menus that will be practicable in Western Canada, and giving, as clearly as possible, directions for preparing and serving the different dishes, especially the first time the dish appears in a menu. Of course I shall be very glad at all times to receive suggestions and contributions of tested recipes from any member of a home economics society or any reader of this paper.

Good Tools are Essential

In the first place I want to point out one big reason why some women do not like to cook. It is because they do not have their kitchens conveniently arranged for work and very often do not have enough, or the right kind of tools to work with. I have seen lots of homes beautifully furnished and well equipped in every department but the kitchen and then there was a dearth of even the essentials in the way of cooking utensils. I am not making a plea for an elaborate assortment or for stinking one's kitchen with all the fads in the way of labor-saving devices; lots of them are excellent and should be procured as soon as they can be afforded, lots more of them are not worth

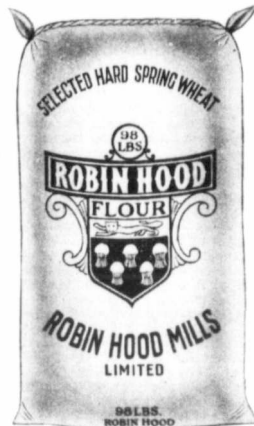
the price asked for them nor the space they occupy in the kitchen.

Let us make an inventory of the cooking utensils and find out if essentials are included in the list. Besides the big things such as tea kettle, dish pan, frying pans, dripping pans, bread board, rolling pin, meat chopper, and several sizes of good saucepans, there should be one or two standard measuring cups, a couple of standard tablespoons and teaspoons, No. 939, a wooden or granite mixing spoon, a couple of egg beaters, one a wire whip, the other a Dover, a double boiler or rice cooker, a couple of sieves of different sizes, enamel or granite baking dishes,

bread pans, cake tins and a steamer and frying kettle. All these articles to be of the size and number to suit the requirements of the family. Having these things the next thing is to learn their special use, and knowing it, form the habit of always using them in the right place. The sooner the matter of handling certain utensils and doing certain tasks becomes automatic the sooner will you become an expert cook and enjoy the reward of success.

For instance, when stirring or mixing anything always make a point of using the wooden or granite spoon, the wooden is preferable, because in stirring over the

fire the handle will never get hot. The stirring spoon, however, is not to be used for measuring. The standard measuring cups and spoons are to be used because all good and reliable recipes are constructed by them and accuracy in measurement is one of the essentials to success in cooking. The double boiler is necessary for it provides a way in which to cook custards, sauces and various other dishes which should always be cooked below the boiling point. A double boiler may be improvised by putting one saucepan inside a larger one, having boiling water in the outer vessel and the article to be cooked in the inner one. But this is in-



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RED ROSE TEA "is good tea"

convenient and does not permit of cooking by steam as is sometimes desired, so better get the double boiler the first chance you get. When you have learned its usefulness you will never keep house without it. Two egg beaters are suggested, the whip for whites of eggs, which should always be beaten on a plate, the Dover beater for whole eggs and yolks; these are generally beaten in a bowl. The number and size of the saucepans will depend considerably on the size of the family but they should always be of good material, without breaks or chipped places in the enamel, if that ware is used. It is almost impossible to cook without burning in a saucepan from which the enamel had been broken or worn off, besides the glazing is a kind of glass and bits of it entering the stomach or intestines may be injurious.

A Lesson in Food Principles

After equipping our kitchen with the necessary utensils and before we actually begin to cook, it is important to know something about the character and composition of the materials which we are to use. For, no matter how fond we are of cooking and even if we have acquired considerable skill in it, the real reason for our efforts is to furnish nourishment for the body in such form as is most useful to it and also to provide material for body heat and energy. According to its function the nutritive part of food—or the "food principles"—are termed protein (or tissue builders), fats, carbohydrates, water and mineral substances. Proteins contain nitrogen, oxygen, hydrogen, carbon and sometimes sulphur and phosphorus. They make up the greater part of all tissues and organs of the body and are necessary in order to supply the elements for growth and repair. This class of foods is found in considerable quantity in lean meats, fish, the white of eggs, curd of milk and cheese, beans, peas, gluten in flour and nuts. There is a small per cent of protein in all kinds of food except pure fats, sugars and starches.

Fats contain only carbon, hydrogen and oxygen. They are concentrated fuel foods and give to the body 2 1/2 times as much heat as will be furnished by the same weight of dry protein, starch or sugar.

Carbohydrates include both sugars and starch foods and are composed of carbon, hydrogen and oxygen. The difference between this class of food and the fats is that the hydrogen and oxygen in carbohydrates are always in proportion to form water and there is much more carbon in the fats.

The carbohydrates, like the fats, are fuel foods and yield warmth and power to the body when oxidized by the air which is brought in by the lungs.

If more food is eaten and digested than the body requires for immediate use it is stored up as fatty tissue to be used for fuel if necessary. At least fats and sugars are stored up as fat but the pro-

teins, if eaten in excess of requirements, are likely to clog the digestive tract and make poisons in the blood.

Water is needed for the fluids of the body, to carry food to the tissues and carry away wastes, also to regulate the temperature of the body.

Mineral substances are necessary in the formation of bone, in the digestive fluids and as a small but necessary part of every living cell in the body. Mineral matter is found in all foods but is most abundant in vegetables, fruits, milk and eggs.

A certain amount of these food principles is needed every day in the diet of every person, the amount depending on the age of the individual, his work, the climate in which he lives and the general condition of his health. There is more likely to be too large, rather than too small, an amount of all the classes of food in the ordinary diet. The woman, who is desirous of making the food which she serves day after day to her family accomplish the most good, will learn to classify all the common foods according to their chief constituents and will try to serve them in as nearly correct proportions as possible. The well balanced diet should contain fuel units from 10 to 15% protein, 15 to 40% fat and from 40 to 60% carbohydrate.

The value of any diet is not so much what foods it contains as the amount of body fuel which it represents, so the dietitian calculates of heat units in a day's rations more than the variety of the bill of fare.

Composition of Some Foods Before Cooking

The following table gives approximately the parts of nutriment in 100 parts of food materials:

Eggs—13 parts albumen, 10 fat and 74 water.

Milk—3 1/2 casein, 4 fat, 5 sugar and 87 water.

Wheat flour—12 water, 12 gluten, 75 starch and 1 fat.

Cornmeal—12 water, 9 protein, 75 starch, 2 fat.

Dry beans and peas—13 water, 24 protein, 60 starch, 2 fat.

White potato—78 water, 2 protein, 18 starch, trace of fat.

Beef—(average) 60 water, 18 protein, 20 fat.

Cheese—33 water, 26 protein, 33 fat.

Nuts—3 water, 20 protein, 15 starch, 55 fat.

Butter—12 water, 1 protein, 85 fat.

Lard, olive oil—100 fat.

Carrots, parsnips and turnips—85 water, 1 protein, 9-12 starch and sugar, 1/2 fat.

All these foods contain from one-half to one per cent of mineral matter, the amount being largest in vegetables and fruits.

Effect of Heat on Different Foods

After studying the classes of food, and learning to distinguish them according to their chief function in the body, it is necessary to know something about the effect of heat on each class and whether cooking increases or decreases its digestibility. The term digestibility usually refers to the length of time a food remains in the stomach rather than the amount of it which is digested.

Protein foods are hardened somewhat by heat, this class of foods is made less digestible by cooking because one form of it is albumen, or a substance similar to white of eggs. This is hardened by heat and if the temperature at which it is cooked is above 160 degrees F., it is toughened. Other proteins, as found in meat milk, gluten and beans and peas are hardened somewhat by heat.

Fat is not greatly changed in cooking unless the temperature is too high, the flavor of fat meat is improved by cooking. Too high a temperature causes fats to break up into glycerine and a fatty acid the temperature at which this change takes place varies with different fats. Butter "splits up" at the lowest temperature which is the reason why it is not a suitable frying medium, olive oil "splits" at the highest temperature though both lard and beef suet can be heated to a high degree before this change takes place, which imparts to the fat a bitter taste.

Starch absorbs water, swells and becomes partially soluble in water. The wall, or covering, which surrounds the grain of starch is ruptured by boiling temperature and the starch within is liberated and becomes gelatinized by



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The People's Wholesale Supply Co., Barris, Ont.

cooking. Because it is essential, in the proper cooking of all starchy foods, that this covering should be broken, all cereals, potatoes and other starchy vegetables should be cooked in boiling water for a long time.

Sugar is not changed if cooked at a low temperature, unless it is cooked in a food containing an acid, then it slowly changes to another form, less sweet and non-crystallizing. Cooking sugar in rhubarb or other acid fruits is an example of this change; less sugar is required to sweeten it if it is added after the rhubarb is cooked.

In cooking, all foods are subjected either to dry or moist heat and these two general methods are divided into the following different ways of cooking:

In dry heat—Broiling pan-broiling, roasting and baking, all of which require a high temperature at first and when applied to meats the object is to first sear the outside of the piece of meat, to retain the juices then cook at a lower heat to soften muscle fibres and prevent the albumen toughening.

Boiling is cooking at the temperature of boiling water, 212 degrees F.

Stewing is cooking in a liquid generally water at a temperature ranging from 160 to 180 degrees.

Steaming is cooking in contact with steam, usually over water.

Frying is cooking in sufficient fat to cover the food, about 360 degrees.

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Sauting is cooking in a small amount of hot fat, a method useful in browning cooked foods and often called frying.

Braising is a combination of stewing and baking, a method sometimes used in cooking tough meats.

Fricasseeing is a combination of sauting and stewing.

Rules for Measuring

Since accuracy in measurements is an essential to success the student of cookery must follow directions for measuring different ingredients. To do this on every occasion enables one to be almost certain of success at all times. There is only one other process in cooking of equal importance and that is to know the effect of heat on different materials.

All dry materials are measured level, that is by filling cup or spoon more than full and leveling off with the blade of a knife. This applies to all substances, which may be "rounded up" in the spoon. To measure one-half a table or teaspoon measure a level spoonful then make a line lengthwise through the center taking off half. For a quarter of a spoon divide a half spoonful crosswise; an eighth is one-quarter divided through the center. Flour, meal and fine sugar are measured after sifting and soda, or any other ingredient that may become lumpy by standing, should be rolled before measuring. A cupful of liquid means the cup filled to the brim, so full that a steady hand is needed to lift it. As tea and coffee cups vary considerably in size it is impossible to obtain correct measures by using them; that is the reason why one or two standard measuring cups should always be included in a cooking equipment.

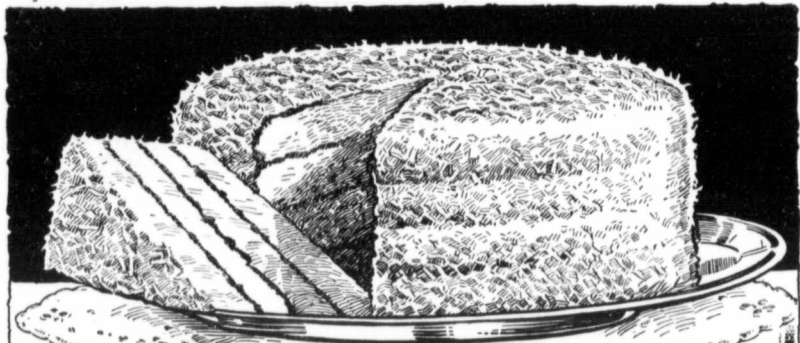
With these principles and preliminary directions mastered it will be possible in our next issue to begin work in combining ingredients and planning menus.

THE "NORHLAND" SWEATER

The editor of this paper, while recently interviewing the manager of the Northland Knitting Co., Ltd., asked why it was that the plant was kept so busy when other industries were running slow. The answer was that manufacturing good honest merchandise and guaranteeing every article sold, made the name of "Northland" brand so popular with the consumer that when it came to buy sweaters, mitts or gloves from the storekeeper, the buyer remembered the satisfaction he had experienced with "Northland" products, and invariably insisted on having the "Northland" brand. Guaranteed merchandise is what the consumer is looking for, and if he does not receive value for his money, he is insured protection to this extent, that faulty garments will be replaced or his money refunded.

In looking through the plant, the writer was informed that the company now employs over 100 hands, and though they are working overtime three nights a week, the factory capacity finds it all it can do to keep up with orders and fill them promptly.

With the high ceilings, well-ventilated and splendidly-lighted floors in this factory, the manager has very little trouble in securing enough employees, although



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*The famous Five Roses Cook Book.



it is well known that labor just now is very hard to get.

It looks as if this representative Canadian company will be forced in the near future to use the space above the building, by adding another story or two.

The growth of this concern is remarkable when one recalls the fact that some seven years ago when the company first started there were only five people employed.

THE FARMERS' OWN FLOUR MILL

"The flour that is always good" is the proud slogan of the Echo Milling Company of Gladstone, Man. That a continuity of the highest quality that Manitoba Hard is capable of producing can be depended upon rests, of course, to

a large extent, with the man behind the mill.

In the case of the "Echo" incorporation, it is gratifying and re-assuring to know that practically every stockholder in it is a farmer and the small minority left are not farming just because their talents and experience are being devoted to the scientific and extremely necessary business of transforming the finest of wheat into the finest of flour.

Gladstone, as is well known, is the centre of one of Manitoba's greatest wheat-producing areas, and naturally, the wheat ground by the "Echo" Company is largely, if not entirely, recruited from that neighborhood.

The well-known red and blue stencilled flour sacks of the Echo Milling Company are now a familiar sight in every country store, and many of the leading city establishments give a warm preference to the "Gold Drop Hungarian," because so many thrifty housewives and expert bakers insist on having it.

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SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS.

THE sole head of a family, or any male over 18 years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan or Alberta. Applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the District. Entry by proxy may be made at any Dominion Lands Agency (but not Sub-Agency) on certain conditions.

Duties—Six months residence upon cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres, on certain conditions. A habitable house is required except where residence is performed in the vicinity.

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price \$3.00 per acre.

Duties—Six months residence in each of three years after earning homestead patent; also 60 acres extra cultivation. Pre-emption patent may be obtained as to a homestead patent, on certain conditions.

A settler who has exhausted his homestead right may take a purchased homestead in certain districts. Price \$3.00 per acre.

Duties—Must reside six months in each of three years, cultivate 50 acres and erect a house worth \$300.

The area of cultivation is subject to reduction in case of rough, scrubby or stony land. Live stock may be substituted for cultivation under certain conditions.

W. W. CORY, C.M.G.,
Deputy of the Minister of the Interior.
N.B.—Unauthorized publication of this advertisement will not be paid for.—64955.

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The Big Store's Service Reaches the Boys in the Training Camps, Trenches and Hospitals just as surely and satisfactorily as it does the folks at home.



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IMPORTANT

ENGLAND. The limit in weight for parcels is 11 pounds and the rate 12c per pound or fraction thereof.

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GIFT BOX 6G1
\$1.00

1 flask Horlick's Lunch Tablets, Cocoa Flavor.
1 tin Tabloid Tea. (Makes 50 cups.)
1 tin Oxo Beef Cubes.
2 pkgs. "Life Savers" Mints.
2 pkts. Chewing Gum.
3 bars Chocolates.
Shipping weight, 2 lbs. 3 1/2 ozs.

GIFT BOX 6G2
\$2.00

1 tin Tabloid Tea (makes 50 cups). (Cocoa Flavor).
1 flask Horlick's Lunch Tablets (Cocoa Flavor).
2 tins Oxo Beef Cubes, large.
3 pkgs. "Life Savers" Mints.
4 pkts. Chewing Gum.
1 lb. Overseas Chocolate.
1 tin Zam-Buk Ointment.
1 pkt. Sabadilla Vermin Powder.
Shipping weight, 3 lbs.

GIFT BOX 6G3
\$3.00

1 tin Tabloid Tea (makes 50 cups of good tea).
1 box Saccharine Tabs, to sweeten 100 cups of tea.
1 large tin Oxo Beef Cubes.
1 flask Horlick's Malted Milk Lunch Tablets (Cocoa Flavor).
1 lb. Overseas Chocolate.
3 pkts. Gum.
3 pkts. "Life Savers" Mints.
1 Fruit Cake (in sealed tin).
1 tin Sardines.
1 tin Throat Pastilles, for coughs and colds.
1 pr. Good Quality Military Socks.
2 Active Service Handkerchiefs.
1 tin Zam-Buk Healing Ointment.
1 box Sabadilla Powder, Vermin Destroyer.
3 sample tins of Mentholatum Healing Ointment.
Shipping weight, 5 1/2 lbs.

GIFT BOX 6G4
\$3.75

1 lb. Overseas Chocolates.
3 pkts. Gum.
3 "Life Savers" Mints.
1 large tin of Oxo Beef Cubes.
1 tin Tabloid Tea. (Makes 50 cups of good tea).
1 flask Horlick's Malted Milk Lunch Tablets, Cocoa Flavor.
1 pkt. Cream Cheese.
1 tin Sardines.
1 Fruit Cake (in sealed tin).
1 pair Military Socks, good quality.
2 Active Service Handkerchiefs.
1 tin Zam-Buk Healing Ointment, for minor cuts, bruises, etc.
1 box Sabadilla Powder.
1 Military Mirror, unbreakable, in neat leather case.
1 Comb.
3 sample tins Mentholatum Ointment.
Shipping weight, 6 lbs 5 ozs.

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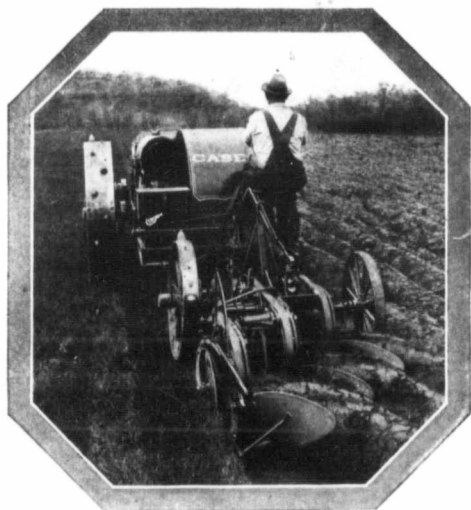
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When you investigate Case tractors, you note first their simplicity. As an example of this point, by means of hand hole openings any necessary adjustments can be made on the crank pin or main bearings of the motor without dismantling any vital parts. The cylinder head on the 10-20 is removable making it an easy matter to clean out the combustion chamber or to regrind valves. Access to the governor can be had by simply removing a cover. Simplicity thruout is a feature of Case tractors. Second, the accuracy of their manufacture—on no other tractor do you find such workmanship and that's a big factor in the lasting qualities of your tractor.

But space does not permit of complete details. Whether you are interested in a Case 10-20, 12-25, 20-40 or 30-60 you should have a copy of our big Case Catalog for reference. It contains valuable information, besides, being finely illustrated with scenes and color reproductions. Your name and address brings you a copy.

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