

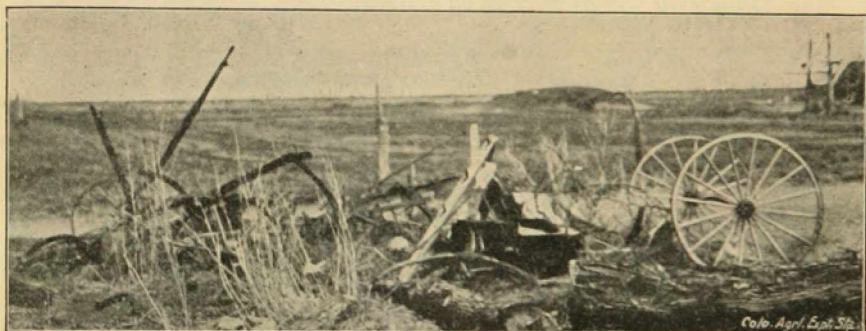
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A Too Common Farm Scene

LIFE AND CARE OF FARM MACHINERY IN COLORADO

BY

H. M. BAINER *and* H. B. BONEBRIGHT

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LIFE AND CARE OF FARM MACHINERY IN COLORADO

By H. M. BAINER and H. B. BONEBRIGHT

The twelfth census report of 1900 places the valuation of the agricultural implements on the farms of Colorado at \$4,746,755.00. Knowing of the wonderful development of agriculture in Colorado within the past decade, a conservative estimate would not place the present valuation at less than \$10,000,000.00.

In traveling over the state, the ordinary observer is unfavorably impressed with the methods now commonly found in use by our farmers for taking care of their machinery. As a general rule, the prosperity of the farmer may be estimated by the way he cares for his machinery. Poor care indicates shiftlessness, waste, lack of energy and the necessity of buying more machinery in a short time.

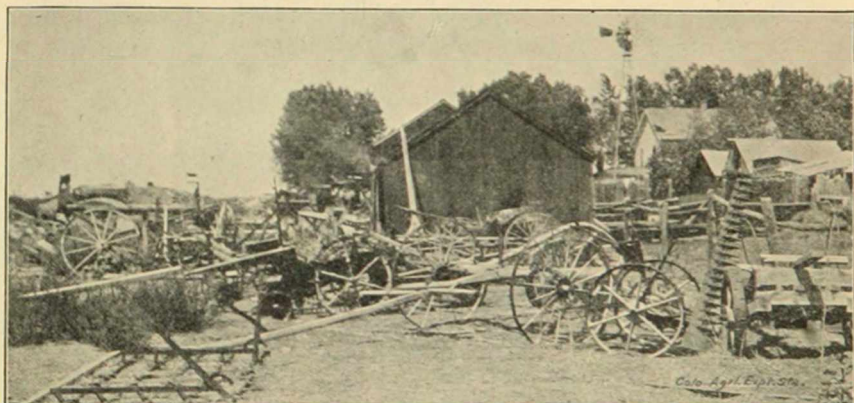


Plate 2. The profits from many Colorado farms are found in such "junk heaps" as this.

Good care, on the other hand, indicates prosperity, development, bank deposits, and long lived machinery.

At the present time there is a growing demand for information on the subject of the life and care of farm machinery in Colorado. With the idea of obtaining this information, the Farm Mechanics Department has carefully investigated the machinery conditions on over two hundred representative farms in all parts of the state. This information is summarized in the following remarks:

SELECTION OF MACHINERY.

Type.—The proper care of a farm machine begins in the careful and intelligent selection of the correct type of machine for the work which it is expected to do. This point is too often overlooked

by the man who is strongly prejudiced in favor of some particular make or so-called "line" of implements.

Size.—When the correct type of machine has been selected, its size should be carefully considered. By the use of sufficiently large and strong implements, with large capacity, a great deal of time and labor is saved and the life of the machine is greatly lengthened.

For example, on a fair sized field, a three section harrow will do one-half more work with the same amount of man labor. The teeth, having to travel less distance in harrowing the field, will remain sharp longer, and, consequently, the efficiency of the harrow is increased, while the time required for the work is decreased.

Three section harrows were found in operation on one-third of the enumerated farms of 80 acres and over. Three section harrows were used on but one-half of the enumerated farms of 160 acres and over, the remaining one-half using nothing larger than the two section harrow. In no case was a farmer found who had used a three section harrow and was willing to discard it for one of two sections.

A man of ordinary ability can handle a two bottom gang plow nearly as easily as a sulky, or one bottom plow. By the use of the gang the capacity of man and plow are doubled, while the wear on each plow is only one-half what it would be on the single plow, were it made to cover the same number of acres as the gang. Then too, time is saved in case the shares must be taken to a shop for sharpening, as only one-half as many trips are necessary for the gang as with the single plow, for a field of equal size.

Gang plows, ranging from two to four bottoms, are now being used on less than nine per cent of the farms of 80 acres or more which have been investigated. In communities where suitable gang plows have been tried, the demand for them is increasing.

In some cases, such as gardening, special farming deep work, etc., it is often not advisable to try to cover too much ground at once. Again, some of our special implements are made only in single units, such as the modern two-way plow. This plow has many advantages that will often justify its use in place of the two and four bottom gang plows.

Accessibility to Repairs.—In selecting machinery, it is usually advisable to consider the matter of securing repairs. Repairs or new parts must be secured for nearly every farm implement some time, or perhaps several times, during the life of it. Usually, the repairs are not ordered until the implement will not run any longer without them and then they must be secured in a hurry. For example, the binder, mower, or other important implements or machines must be repaired at once, or the farmer may lose part of his

crop while waiting for repairs. In this case, the question of being able or unable to secure the necessary repairs, may represent the difference between loss and gain on the season's crop. For such implements as are absolutely necessary during certain seasons, the owner should be able to get repairs on not over one day's notice, if not at once. Instances were found where the farmer was compelled to buy a new machine of another make simply because he was unable to get a repair for his old machine in time to do the necessary work.

Oiling Devices.—Good visible oiling devices should be found on every farm machine. In selecting machinery this point should be kept in mind, as the life of the machine depends to a considerable extent upon whether or not it can be kept thoroughly oiled. Often all the necessary oiling provisions are made, but they are not in as plain sight as they should be and for this reason are likely to be overlooked.

Again, the oil holes should be well protected from dirt, and should also be easy to clean. Fast running machinery and that which needs oil constantly should be provided with good, self feed-

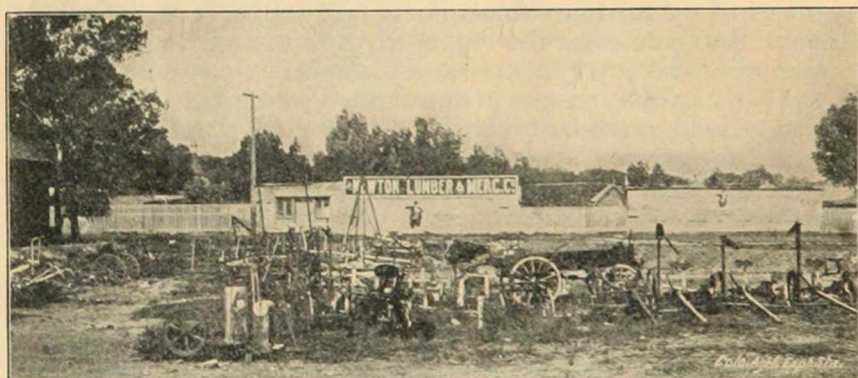


Plate 3. Machinery loses much of its value if kept in an agent's back yard for several years.

ing oil cups. Hard oilers have proven very satisfactory, especially where the parts are subjected to a great deal of dirt and there is no question but that they should be used even more than they are at present.

Thoroughly Painted.—The new implement or vehicle, as it comes from the dealer, should show a good grade of paint. This is especially true of buggies and wagons. The paint should show that it has been applied in smooth thin layers, which have been well rubbed down, and should not show a tendency to clottiness or scaliness. The paint should be covered with a good coat of varnish.

The character of the implement or vehicle is reflected to a

certain extent by the paint which covers it. Certain implements are known by their good paint, others are known by their poor paint.

New Machinery.—In buying new machinery or implements, the farmer should see to it, that he is not paying the price of a new machine for one that stood in an open back yard of some implement dealer, from one to three years. This is often the case and there is no good excuse for it from either the standpoint of the dealer or the farmer.

In the first place, the dealer should not allow his new machinery to stand in the open for long periods, and thus let it become weather beaten and damaged. In the second place, the farmer should not buy this damaged machinery at new machinery prices. He must consider that an implement is damaged as much by standing out one year, as it would be by actually using it one season.

PROPER ADJUSTMENT AND REPAIRS.

Adjustments.—Nearly every one understands the importance of making proper adjustments on farm machinery. A large percentage of the machines found in the field are badly out of adjustment. In many cases the improperly adjusted machines do such inferior work that they are discarded long before they are worn out.

For example, on one of the farms investigated, a binder, of reliable make, was found which had cut but ten acres before being discarded eight years ago, simply because the operator was unable to properly time the binder driving gear, after he had removed the cog wheel to replace a defective spring. The same make and type of binder has been in active operation on another investigated farm for the past twelve years. It has cut at least nine hundred acres and is still in first class condition.

The improper adjustment of one part of a machine often leads to the ruination of several other parts, much time of man, team and machine is lost "tinkering" with improperly adjusted machinery. In a large percentage of cases, the draft of the implement is unnecessarily increased because of improper adjustment. Not only is the draft increased, but it is not uncommon to find side draft produced in the machine as a result of improper adjustment.

The loss due to the discarding of machines before they are worn out, the inferior work, the damage to teams from excessive draft and side draft, and the valuable time lost in "tinkering" always justifies the spending of sufficient time to put the farm machinery in proper adjustment before it is put into regular service. Many of these adjustments may be made long before the machine is needed.

Repairing Machines.—Every machine, in active operation will sooner or later need repairs. The operator should be able to foresee the need of a large part of the necessary repairs some time before

they are actually needed. Of course, in the case of parts that break unexpectedly, due to defects or accidents, the operator has a reasonable excuse for not foreseeing the trouble. But in cases where parts are worn, or weakened, there is little excuse for not making repairs long before the machine is to be operated again. In some cases it may be desirable to operate the old part for some time after it is badly worn. Under such conditions, good judgment demands the keeping of the extra part on hand ready to be substituted when occasion demands. As a worn part often ruins some unworn part, it is often advisable to replace the badly worn part at once. The main gear on a binder is an excellent example of the last mentioned case. After the pinion becomes worn, it is likely to either cut out the gear wheel or slip cogs, thus endangering chains and other gears.

It is advisable to place a tag upon each machine at the end of the season, stating just what repairs and adjustments are needed, so that these may be secured or made during the time when work is not pressing.

The investigation, which was carried on in May and June, showed that out of 1,716 machines (not including any discarded machines) 60.6 per cent were not in need of repairs. 27.15 per cent were in need of repairs according to statements received on the farms. The investigator could easily see, without careful examination, that 18.6 per cent of the machines needed repairs that were not reported. On 109 or 6.35 per cent of the machines the investigation showed that repairs in addition to those reported on the farms were needed. (The discrepancy of 6.35 per cent is thus explained.)

Sharpening.—There is little doubt in the minds of experienced farmers but that dull implements do an inferior grade of work, and at the same time, they unnecessarily increase the draft.

In general, with the exception of the smoothing harrow, the implements investigated proved to be as sharp as could reasonably be expected. Plows, disc harrows, cultivators and weeders, were found to be in first class condition so far as sharpening was concerned. On the other hand, the smoothing harrow, one of the most important of farm implements, was found to be too dull for good service in 77 per cent of the investigated cases. Nearly 7 per cent of the harrows were too nearly new to be badly dulled, while only 16 per cent of the harrows had had the teeth reversed or sharpened. In the records of the dry farming sections over 83 per cent of the harrows (not including new ones) were sharp. In a great many cases, all that was necessary was the reversing of the teeth in order to give all the advantage of the sharp harrow, yet in only a few cases had this been done.

The investigation discovered harrows which had been in use for twenty years, and which had covered 3,000 acres without being sharpened or reversed.

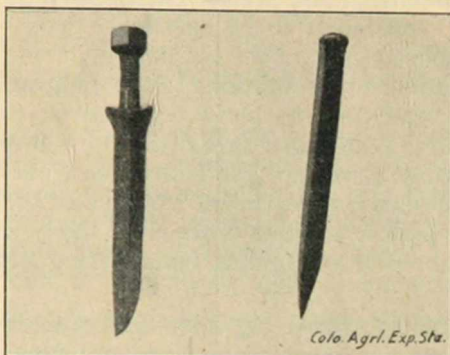


Plate 4. It costs no more to do good work with a sharp harrow than it does to slide over the ground with a dull one.

THE FARM WORK SHOP.

If the observer was to draw conclusions from the farms investigated, he would have to conclude that very few farmers realize the importance of the farm work shop. As a matter of fact, a great many of those farmers who do not own shops understand the advantage of them. Again, many farmers are under the impression that they haven't the "knack," which they believe is a necessary adjunct, if they are to do repair work. Many have not investigated the cost of a small shop outfit, neither have they figured the matter on a basis of dollars and cents.

In cases where farmers are not very handy to the local shop, the time which is lost while going to and from the distant shop often amounts to several times the actual charges. At critical times, such as harvesting or seeding seasons, one long trip to town for repairs may cause a loss more than equal to the value of a well equipped shop.

The following table shows that the machinery found on farms having well equipped shops is in need of less repairs than that on farms without shops:

	Farms with- out Shops	Farms with Shops
Percentage of machinery not needing repairs.....	59.25	71.36
Percentage of machinery needing repairs as re- ported by the farmer.....	27.7	22.4
Percentage of machinery needing repairs as re- ported by investigator and not by farmer.....	20.2	6.24
Percentage of machinery reported by investigator needing repairs in addition to those reported by the farmer	7.15	0.0

The fact that machines are found in a better state of repair on the farms having well equipped shops goes to show very plainly that there is a real value to the shop beyond the occasional emergency job. These facts in themselves are strong arguments in favor of the farm shop. Of the farms investigated a little over 9 per cent were equipped with suitable shops.

Equipment.—In order to obtain the best results, the shop should be fitted with both carpenter and blacksmith tools. It should be handy to the place where the implements are stored, and some means of heating it in winter should be provided. A very serviceable farm carpenter equipment may be procured for less than \$20.00 as follows:

One—grindstone and frame.	one— $\frac{1}{4}$ -in. bit.
" —oil stone.	" — $\frac{3}{8}$ -in. bit.
" —good square.	" — $\frac{1}{2}$ -in. bit.
" —fine cross cut saw, at least	" — $\frac{5}{8}$ -in. bit.
24 in. long.	" — $\frac{3}{4}$ -in. bit.
" —rip saw at least 26 in. long.	" —1-in. bit.
" —compass saw.	" — $\frac{1}{4}$ -in. firmer chisel.
" —claw hammer.	" — $\frac{1}{2}$ -in. firmer chisel.
" —Jack plane.	" —1-in. framing chisel.

One good, adjustable brace, strong enough to operate drills as well as bits.

In case the shop equipment is to be more nearly complete, a coarse, cross-cut saw may be added. A full set of bits, including an expansion bit, may be substituted for the above list of bits and a full set of planes will be found handy at times. A carpenter's combined level and plumb will be useful as will also a wood bench vise. The bench is easily constructed upon the farm.

In the line of blacksmith tools a great deal of difference of opinion exists. A small forge and anvil usually prove satisfactory, although some insist on large forges and heavy expensive anvils. It is safe to say that a serviceable farm blacksmith equipment as listed below may be secured for \$30.00.

One small, combined portable hand blower and forge.
Two pairs tongs.
One hardy.
One steel-faced anvil.
One set of screw plates and taps, in sizes $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$,
 $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$ inches.
One triangular file about 6 inches.
One round file 10 inches.
One flat plow file about 14 inches.
One blacksmith hammer.
One combined vise and drill press.

By using the tools furnished with the farm machinery, in connection with the above enumerated outfit, a great deal of very good repair work may be done.

In case more money is to be expended, a strong blacksmith's

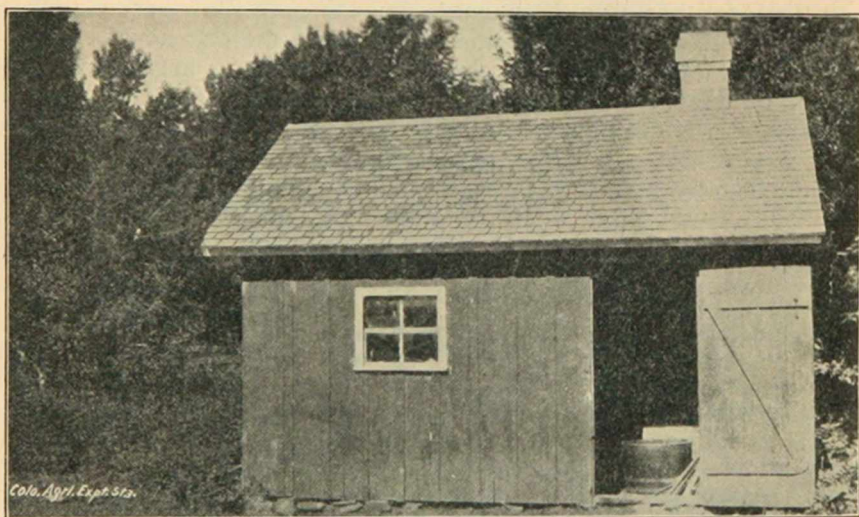


Plate 5. A Small Farm Shop

vise and a separate drill press fitted with twist drills should be substituted in place of the combined outfit. A complete set of screw plates and taps, ranging from one-fourth inch to one inch will be found useful. A heavy blacksmith's hammer and sledge will also come in handy. On large ranches the tire shrinker soon pays for itself.

LUBRICATION.

One of the first steps toward properly oiling farm machinery is to select it with good oiling provisions as described under "Oiling Devices."

Someone says: "Oil is the cheapest machinery we have." It

is better to spend fifty cents for oil than to spend \$5.00 for a new part.

Application.—Surfaces of the wearing parts of a bearing must be covered with a thin film of oil to prevent cutting and to lighten the draft.

A bearing does not have to be “swimming” in oil in order to be well lubricated, but oil should be applied often in small quantities and should reach the place which needs it. All oil holes must be kept open and free from dirt. Sometimes they become clogged, and while they may appear to be open, still they do not convey the oil to the wearing parts and a great deal of damage is done. Many machines have been condemned, simply because one or two oiling places have been entirely overlooked. Often, for lack of a few drops of oil, the entire machine is brought to a standstill.

Kind of Lubricant.—There are many good grades of machine oils or lubricants on the market. There are also many poor grades of lubricants which are adulterated with rosin or paraffine, and may appear to be of excellent quality, but they are too gummy and dry up in a short time. Good oils will cost a little more than the cheap oils, but the higher priced oils really cost less in the end.

For farm purpose oils may be classified into heavy oils, light oils, cup grease or hard oil and axle grease. These do not necessarily include gasoline engine and steam engine oils.

The heavy oils are thick or viscous and are adapted to use only in such places as drive at slow speeds and carry heavy weights, as axles of wagons. The heavy oil is not easily forced out of the bearings and it lasts longer.

Light oils or thin oils come in several grades. For ordinary farm machinery, a medium thin oil will answer a large share of the needs. For high speed, light running machinery, such as cream separators, a thinner oil is used than that advisable for ordinary farm machinery. This oil is not adapted to machinery that carries heavy loads as it will squeeze out of the bearings too easily.

Cup grease or hard oil has many qualities to recommend it. It remains on the bearing very well, and is easily applied and can be used in place of heavy and medium oils. It is usually applied through an automatic compression cup or a hand screw cap cup.

In using hard oil, dirt cannot enter the bearing with the oil, in fact, if any dirt enters the bearing from the end, the oil will force it out. Again, if the bearing should begin to heat, the oil will begin to melt and feed faster, if the grease cup is placed above the bearing.

For gasoline and steam engine cylinders, special cylinder oil must be used. Gasoline cylinder oil is lighter and thinner than

steam engine oil and is less expensive. The cylinder oils must be able to stand a great deal of heat. A good grade of ordinary machine oil will lubricate all parts of the engines, excepting the cylinders.

Oiling New Machinery.—On account of paint in the bearings of new machinery, the moving parts often run hard for the first few days. This paint can be easily removed by the application of kerosene or a mixture of equal parts of kerosene and machine oil, as the machine is being started.

CARE OF MACHINERY WHEN NOT IN USE.

To properly care for the farm machinery means that it must be well selected, kept in good repair and adjustment, oiled thoroughly, cleaned before housing, and it must have all wearing parts well greased when not in use, and painted when necessary, and it must be properly housed.

At least one-half of "good care" consists in keeping the machinery properly repaired, in good adjustment and thoroughly oiled when in use. To neglect any of the lines of care mentioned, means serious damage and loss to the machine.

The investigation showed that a small percentage of the farmers were taking the proper care of their machinery all the time. Certain farmers were found who gave their machinery excellent care when it was in use but it was given no care between seasons.

The investigation shows that there is a decided tendency to neglect the housing of machinery throughout the State. On but 22.15 per cent of the investigated farms was all the machinery housed. It was partly housed on 39.60 per cent of the farms, and on 38.25 per cent of the farms no attempt was made to house any of the machinery except the buggies, carriages and automobiles.

With the one exception of binder canvasses only 2.01 per cent of the farmers removed bright or delicate parts of their machinery for storage.

The fact that such a large percentage of the machinery is allowed to stand in the open is partly, but not wholly, explained by the marked scarcity of suitable machine sheds upon the farms.

Of the investigated farms only 19.46 per cent were equipped with closed machine sheds. 34.23 per cent had some form of open shed and 46.31 per cent had no machine sheds at all. In 74 per cent of the open sheds the machinery served as a hen roost while the chickens were allowed to roost in but 31 per cent of the closed sheds. Hogs, calves, etc., were allowed to run at will in 19.6 per cent of the open sheds and in only 10.3 per cent of the closed sheds. The fact that in 62.5 per cent of all the sheds investigated the machinery served as a hen roost, and in 15 per cent

of the total number of sheds the farm animals were allowed to run at will, will explain to a large extent why the housing of machinery apparently does so little good in Colorado.

In a large number of cases the housing consists of "going through the motions" rather than actually preparing the machinery for storage and then properly storing it in a suitable shelter.

MACHINERY SHOULD BE CLEANED AND OILED BEFORE STORING.

Whether the machinery is to be housed or not, it should be cleaned and thoroughly oiled at the end of the season. With such machinery as the binder or mower, it is a good plan to thoroughly oil all bearings and wearing parts just before finishing the season. After removing all dirt, wipe the entire machine with an oiled rag or waste. The wearing parts especially should be well greased with tallow or axle grease. If the entire machine is to be housed these wearing parts do not need to be removed from the machine, but they should be removed and stored in a dry place under all other conditions.

HOUSING THE MACHINERY.

To house machinery does not always do as much good as is commonly supposed. In making the investigation, the following question was asked many times: "How should farm machinery be cared for?" It is usually answered by the farmer: "Everyone knows that it should be housed." This is a good answer as far as it goes, but to house machinery under any condition, and not properly care for it otherwise, constitutes very poor care.

Machinery may be just as well cared for if it is allowed to stand in the shade of a tree, as if it is stored in some of the leaky sheds, open sheds, poorly drained sheds, or combined machine sheds and hen roosts, such as were found during the investigation.

There is no question but that to properly house machinery is a great saving, as it not only adds a great deal to the life of the machine but it also adds to the general appearance of the farm. It was generally found that where a farmer was interested enough in his machine to properly house it, he was also interested enough in it to care for it otherwise.

The investigation showed that the life of farm machinery depended a great deal upon the owner. Individual farmers were found who took very good care of their machinery and left it in the weather, when not in use; others were found who gave their machinery very poor care and housed it when not in use. A great deal of housed machinery was found which had done no more work and was no better or older than some which had not been housed but which had been well cared for otherwise.

Cultivator shovels, plow shears, and attachments, which have been removed and greased, should be placed where there is no

chance for them to get damp. It is a good plan to place them in a gunny sack and suspend them from the rafters of the shed or barn.

A great deal of farm machinery can be placed in a small space if properly arranged. At the time of storing the machinery, it should be placed in the shed according to the time it will have to be removed. The machinery that will be used late during the following season should be placed in the back part of the shed and that which is to be used early in the season should be placed in front. In this way, it will not be necessary to remove a great deal of machinery in order to get what is needed first.

The following illustration gives an idea of the amount of machinery which may be stored in a small shed if the man who stores it studies the problem thoroughly.

The following list of machinery was found in a two-story shed 20x30 feet. The shed has a small side door and a large double door at one end. On the first floor: A set of blacksmith tools with bench (repair work is done in the shed), riding plow, 2 cultivators, beet cultivator, binder, mower, grindstone, hay rake, grain drill, 2 smoothing harrows (2 sections each), slip scraper, and lister. On the second floor: A hay tedder (taken apart), several light tools, stoves (stored while not in use), some household goods, and other articles too numerous to mention. In case of large crops, grain is sometimes stored on the second floor of the shed.

The owner of the above described shed unhesitatingly states that the shed is plenty large enough for the implements on 160 acres, providing the wagon and buggy can be stored in some other building.

The time required for storing this machinery and removing it each year is estimated by the farmer to be one-half day for himself and hired man.

As the machinery is being stored, all that which needs repairs or paint should be labeled so that it cannot be overlooked during the time when the farm work is not crowding.

PAINTING FARM MACHINERY.

There is no question but that it pays to keep the farm machinery thoroughly painted. This is especially true with such machinery as is largely constructed of wood. The paint fills all pores and cracks, prevents checking, prolongs the life of the machine and also adds very much to its appearance. Two or three dollars' worth of a good, reliable, ready-mixed paint for outside use, or carriage paint, applied each year to the machinery found on the average sized farm will add many times the cost of the paint to the value of the machinery.

THE IMPLEMENT HOUSE.

It is not always necessary or advisable to construct a special building for storing farm machinery. Often a very good place can be made in the barn or other buildings. By taking some of the parts off of certain machines, they can be easily stored in what otherwise might be waste space.

The characteristics of a good implement shed are:

1. It must be thoroughly drained so the implements do not stand in a wet place.

2. It must protect against sun, wind and moisture.

3. It must not be too expensive.

4. It should be located in a convenient spot and so arranged as to be easily used.

The material from which the shed is made will depend upon the cost and the locality. In the investigation, very good sheds were found which were of wood frame construction, covered with sheet iron. Other good ones were found of wood frame construction, sided with barn siding, drop siding, and in some places with ship-lap. Shingles or corrugated iron generally make the best roofs for machine sheds.

Description of Shed Shown in Plates 6 and 7

This shed was built on a Colorado farm and has been in use for several years. The owner makes a practice of storing his machinery as it should be.

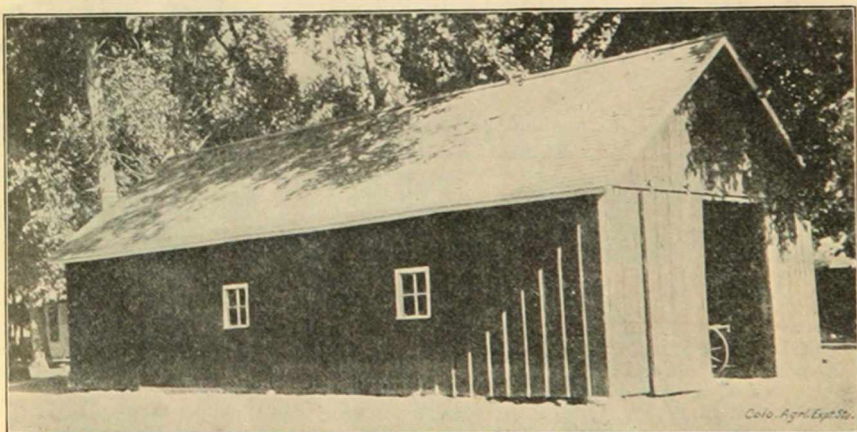


Plate 6. An Excellent Closed Machine Shed. For plans see Plate 7.

The shed is built upon posts which rest upon concrete bases 12 inches by 12 inches. A strong iron dowel pin set in the concrete and projecting up into the post keeps the latter from slipping. The sides of the shed are 8 feet high. The roof is one-third pitch, shingled. Rafters 2 in. x 6 in. x 3 ft. on center. The lower girt is 2 in. x 6 in., the middle girt (placed just below the windows) is 2 in. x 6 in., while the upper girt is 2 in x 8 in. and serves as plate.

As the posts do not extend into the ground, it is necessary to brace the sides and ends of the shed. Braces also extend from the side posts to the collar beams, where the rafters come nearly over the posts. On the south side at the west end is a rolling door 7 feet 6 inches high by 8 feet long. At the east end the opening is 8 feet high by 10 feet wide. It is covered by two rolling doors 5 feet by 8 feet.

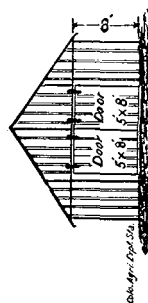
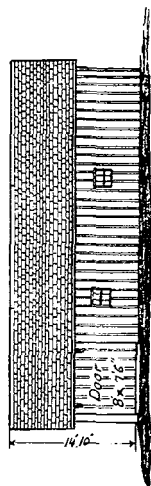
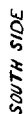
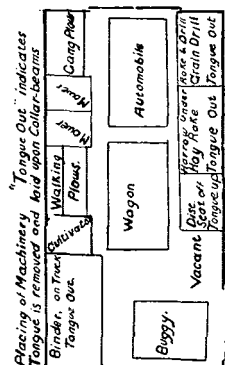
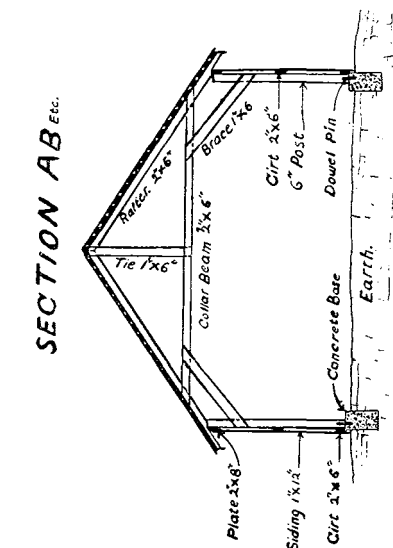


Plate 7. A Very Good Type of Closed Machine Shed

The sides are made of 12 inch stock boards. The cracks are covered with O. G. battens. The ground upon which the shed sits is about a foot higher than the surrounding ground. This gives a hard, dry dirt floor for the machinery.

In the lower right hand corner of the drawing is shown the arrangement of the machinery in the shed. In some cases (marked "tongue out") the tongues are removed from the machines and placed upon the collar beams. The cultivator shovels, mower sickles, plow shears, binder canvasses, etc., are all greased and suspended from the collar beams. A large part of the machinery may be removed by simply running out the auto. In some cases the wagon must also be removed. The transport trucks are almost a necessity for the storage of a binder in this sort of a shed. The shed is painted with two coats of mineral red in oil.

Description of Shed Shown in Plates 8 and 9

This shed has actually been built by a Colorado farmer and proves very economical and satisfactory. The only changes in the original plan is the addition of four small windows. The shed is 16x66 feet. The posts are 10 feet high in front and 8 feet high in the rear, and are set in the ground 3 feet. There is no foundation for the shed.

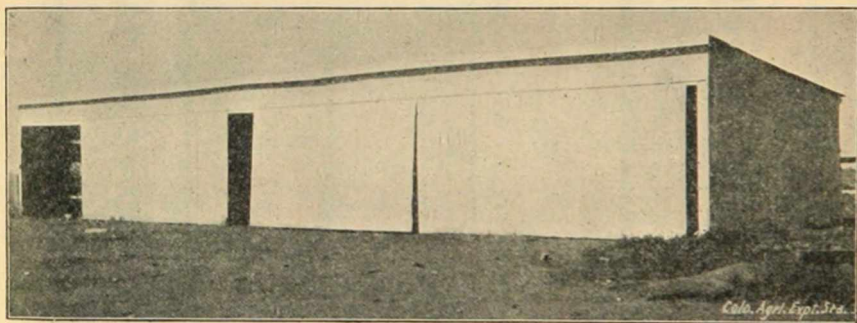


Plate 8. A Well Planned Machine Shed. For plans see Plate 9.

These posts eliminate the necessity of a frame or braces. The bottom girt is 2 in. x 6 in., the middle girt 2 in. x 4 in., and the top girt, which also acts as plate, is 2 in. x 8 in. The rafters are 2 in. x 6 in., set 3 feet apart on centers. The sheathing is 1 in. x 6 in. placed at the ends and in the middle of the sheets of corrugated iron which form the roof. At each end on the front side of the shed is located a 12 foot rolling door 8 feet high. Near the middle of the shed is a 14 foot door 8 feet high. These doors roll upon a continuous track which runs the entire length of the shed.

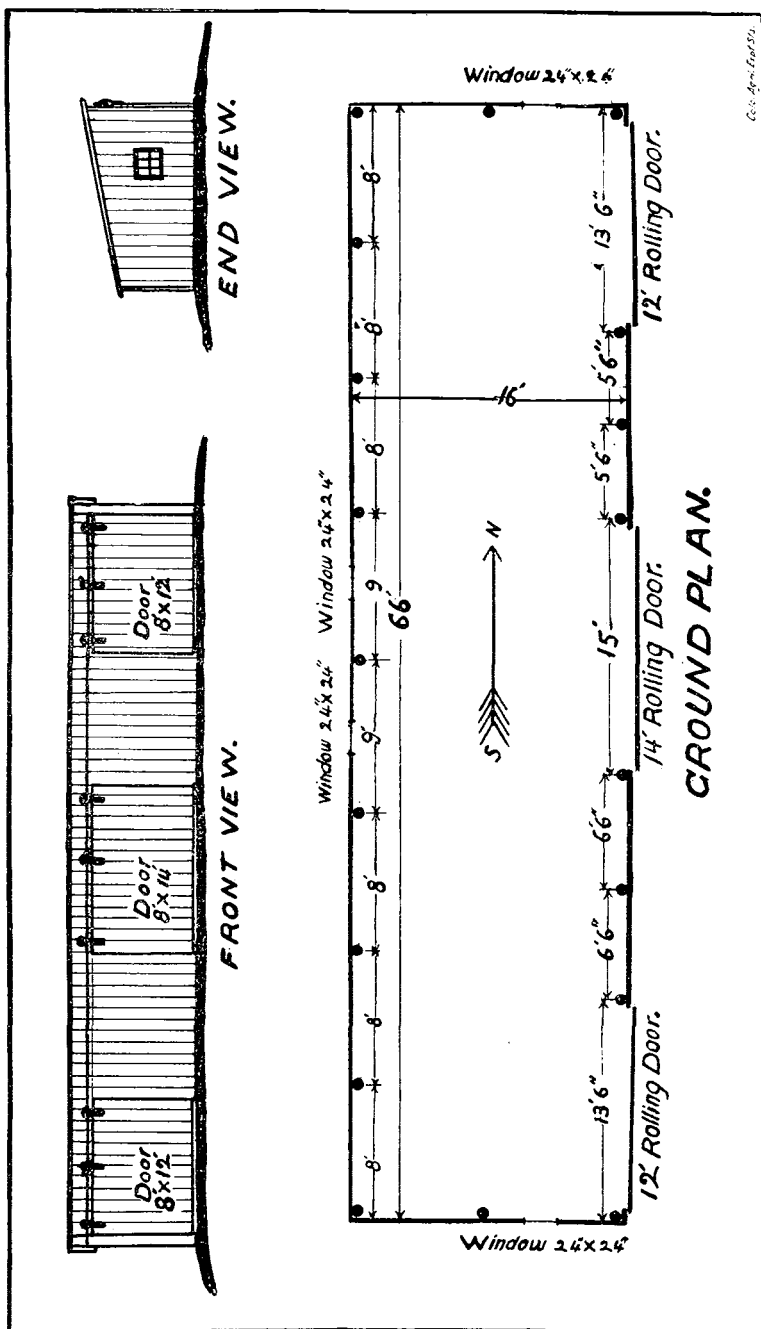


Plate 9. A Very Handy Shed with Corrugated Iron Roof

It becomes necessary to use a 2 in. x 8 in. plate and a 2 in. x 8 in. girt just above the doors to carry the weight of the doors.

The ground upon which the shed sits is about 8 to 12 inches higher than the surrounding ground. This gives a dry earth floor for the machinery.

In the drawing all the doors are closed. In the cut they are opened slightly.

The shed is painted with two coats of white lead in oil.