By Putting the Grain-Grinder and Cutting-Box-in Shape.

It Pays In Time and Money to Over-haul Farm Machinery—Hints on Knife Adjustment—How to Esti-mate the Speed of Pulleys. (Contributed by Ontario Department of Agriculture, Toronto.)

IME in farm work will be saved by systematically overhauling the implements and machinery. This should be done after the season's work is over. Use tends to disorganize machinery: the fixed parts become loose through vibration, wear, stress, and strain; bearings, gears, joints, all bright and moving parts are at-tacked by rust, particularly if left out in the weather; oil holes and grease cups become clogged with gummed oil, dust and trash. All this accumulated matter should be scraped off and the parts wiped down with a rag saturated with kerozene

this accumulated matter should be scraped off and the parts wiped down with a rag saturated with kerozene: afterward covered with a coating of grease or oil as a protective measure against the devasting action of rust. To render efficient service and to prevent possible accidents; these machines should be kept clean, properly adjusted, and run at correct speed.

The grain grinder shaft and bearings should not be allowed to become gummed up with oil and dust: the burrs or plates should be renewed when worn. In replacing them see that they are attached so that they do not wobble, and that the sieves are free from rust, chaff, sand and gritty matter. All running parts should be kept well oiled.

Every working mechanism of the cutting box should be carefully examined and all trash and gummed oil removed from flywheel shaft, feed rolls, bearings and gears; guards and shields placed in position and securely fixed; the feed rolls should move freely up and down and the safety devices in working order. Attend to the cutter har, the feed rolls should move freely up and down and the safety devices in working order. Attend to the cutter har, if too close to the cutter bar; if too far the fodder will not be properly cut; if too dra the fodder will not be properly cut; if too close to the cutter bar the draft of the machine is increased, the knives acting as a brake on the flywheel, dulling both knives and cutter bar. Used with a blower it is important that the proper speed be developed as ine fan can only create sufficient blast by running fast enough to force air through the pipe at a rate of 9 to 10 thousand feet per minute. Speed is an important factor in operating these machines for efficient service, not only as to the quality, or the amount of work accomplished, but most manufacturers state in their catalogues the speed at which the machine should turvel. The operator should figure with place of the size of the diameter of the "driving" pulley multiplied by "R" its speed and "" the diameter of the driving pulley multi

feems we can easily figure out the fourth.

The driving pulley is the one that causes the belt to move.

The driven pulley is the one that is moved by the belt.

Possibly a farmer may have on hand an engine rated 2 h.p., speed 400 revolutions per minute with an 8-inch pulley. He buys a grinder without considering what relation its speed bears to that of his engine. When the grinder is hitched up to the engine it does not deliver the capacity expected of it. This promiscuous buying and want of forethough in purchasing machinery is responsible for a great deal of trouble and dissatisfaction. More attention should be given in this regard when buying additional machinery for the farm. We'll suppose that the grinder bought is rated 2,000 to 2,500 R.P.M., 4 inch or 5 inch pulley; capacity per hour 3 to 10 bushels depending on the condition of the grain.

Relating this grinder to the engine, we find, taking the above formula that B8 x R 400-d4 x r-8 x 400 - 800

R.P.M., but the manufacturer's rating calls for 2,000 to 2,500 R.P.M. Hence the grinder is delivering only two-fifths of its rated capacity or something like 1 1-5th bushels per hour. To get the required speed the driving pulley on the engine should be 20 inches in diameter, worked out as follows:

DxR 400-d4 x r2000-4 x 5-20" pulley. or the speed of the engine with an 8-inch pulley should be 1,000 R.P.M. worked out thus

 $D8xR-d4 \times r2000 - \frac{4x1000}{8/2} - r000 R.P.M.$ This method applies also to finding the speed and size of pulleys of the cutting box.—Prof. Jno. Evans, O. A. College, Guelph

Something About Egg Circles,
There are about fifty Egg Circles
in the province, ranging in membership all the way from four to 400.
The story of all these egg circles and
others which have failed would give
an almost complete picture of how
co-operation should, or should not,
be carried on. In reading over the
names where the circles are established, we find many of them whose
previous market was the small-town
local dealer, with his uneconomio
method of marketing eggs. Such circles are now receiving, in spite of
their distance from the central market, wholesale prices while unorganized points nearer often receive lower prices.

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High rents in Detroit forced a young bookkeeper to send his wife home for a season. On the Big Four, near Pemberville O., his daughter, Dorothy Beatrice was born.

A twig on a hydrangea bush in the yard into which he fell, entered the nose of an II-year-old Freeport, L. I., boy and pierced his brain. He died of spinal meningitis two days later.

"BE MASTER OF YOUR HEALTH"

Make your blood rich-strengthen your nerves, increase your vitality and build up your system generally by using

Dr. Chase's **Nerve Food**

You may be skeptical of what any medicine will do for you. But you are human--your vitality depends on an abundance of rich, red blood. Dr. Chase's Nerve Food supplies the ingredients from which new blood is created, and is bound to help you in the same way that it helps many thousands of others.

HERE IS THE PROOF

Peterboro

Mrs. James Bogne, 220 Dublin St., Peterboro, Ont., writes:-"Three years ago I noticed that our children seemed to be suffering from bad nerves and poor appetites, and were inclined to anaemia. Knowing the good of Dr. Chase's Nerve Food, I started to give them a treatment of this medicine. I found it built them right up, made them bright and cheery and restored their usual good health.

"I have also used the Nerve Food myself and found it very beneficial for nerves and heart. In fact I have found Dr. Chase's Nerve Food to be such a valuable medicine for general family use that I have recommended

Guelph

Mrs. Emma Loach, 95 York Rd., Guelph, Oot., writes:-"Last year my system became run-down, and I was troubled with nervousness. I had frequent headaches and found it difficult to get a good night's sleep. I sometimes had a creepy sensation or hot flashes over my body. I secured some of Dr. Chase's Nerve Food in January, and after using them for a time I noticed an improvement. I therefore continued the treatment until the headaches and that creepy feeling disappeared. I got better control of my nerves, and now can go to bed and get a real good night's rest. We think a great deal of Dr. Chase's medicines, and I can certainly recommend the Nerve Food.

London

Mrs. S. Meathrel, 23 Hyla St., London, Ont., writes:-"About a year ago I had a complete collapse from my nerves. I was taken to the hospital for a treatment, but it did not give me much relief. When I was brought home again, I went to the country for a change of air. I seemed to be a little better while there, but after my return home I did not feel much better. I used to have nervous spells, when my limbs would beshake, then grow cold, and I would be completely exhausted. I was also troubled with an accumulawas also troubled with an accumula-tion of gas on my stomach, which caused palpitation of the heart. At last I decided to try Dr. Chase's Nerve Food, and after I had used them for a while, I could see that they were helping me, so I continued using them until I became quite well again. I be-came real strong and healthy, could sleep well at night, and was able to do my own housework. As I got strong-er the nervous spells disappeared, and I have not had one since. I also used an occasional Kidney-Liver Pill in con-nection with the Nerve Food, which J think cured the gas on my stomach. I have received such benefit from these medicines that I wish to recommend

Hamilton

Mrs. S. Staunton, 136 McNab St. N., Hamilton, Ont., writes:—
"I have used Dr. Chase's Nerve Food for a run-down system, and found it splendid for strengthening and building up the body. I can recommend it to any person requiring a good tonic.'

Woodstock

Mrs. T. Allenby, 369 Main St., Woodstock, Ont. ,writes:-"For several years I have made use of Dr. Chase's Nerve Food as a tonic and blood-builder. Whenever my system gets run down or I do not feel quite up to the mark, I resort to this medicine, and they never fail to build me up and strengthen me. Different members of our household have also made use of Dr. Chase's Nerve Food with splendid results."

Picton .

Mrs. Arthur Hicks, Picton, Ont.,

ites:"About a year ago I was on the verge of nervous prostration. I be-came very irritable, and could scarcely stand the noise of the children. As for sleep, it was impossible. Then I had an attack of neuritis in my right arm and little finger. I had spent a great deal of money on different medicines, and doctored with different doctors, trying to get relief, but without success. Finally I tried Dr. Chase's Nerve Food, and they have given me great benefit. My husband could see a great improvement in my looks in a short time. I feel so much better that I cannot speak too highly of Dr. Chase's Nerve Food, and would recommend them to anyone suffering from nervous troubles."

Brockville

Mr. M. B. McCarten, 88 Church St.,

Brockville, Ont., writes:—
"About five years ago I was troubled Owing to my business (a baker) I had became so rundown that when I could get the time to sleep, sleep would not come. Through reading some of the advertisements and also looking over Dr. Chase's Nerve Food. I purchased a box, tried it, and continued the treatment until I found myself much improved, and could get a good night's rest. Since then, when I feel the need of them, I resort to Dr. Chase's Nerve of them, I resort to Dr. Chase's Nerve Food again, with the same good re-sults. I gladly recommend the use of this treatment to anyone suffering from nervousness or sleeplessness.

Collingwood

Mr. Harry Edward Trotman, First St., Collingwood, Ont., writes:—
"It is with great pleasure I write to
tell you the splendid results I have secured through the use of Dr. Chase's Nerve Food. Before I commenced this treatment, I suffered from nervous treatment, I suffered from nervous-ness—was restless, easily worried; had frequent headaches and neuralgic pains through my body, especially in the back. I could neither sleep nor eat well, my circulation was poor and the heart action seemed weak. I also had attacks of indigestion. I tried several different remedies, but could not gain permanent relie*. At last I started taking Dr. Chase's Nerve Food, and this treatment, together with an occasional Kidney-Liver Pill, worked wonders in my case. Five box-es of Nerve Food cured me. My wife has also derived great benefit from the same treatment, and we shall nev-er be without these medicines in the

At this season almost everybody is in need of restorative treatment to keep up energy and vigor and to maintain health, strength and vitality. Everywhere people are talking about Dr. Chase's Nerve Food, because it seems to be exactly what is required in the great majority of cases to restore the run-down human system. 50 cents a box, 6 for \$2.75, all dealers, or Edmanson, Bates & Co., Ltd., Toronto. The portrait and signature of A. W. Chase, M. D., are on every box.



