

**HOW TO MAKE EVENERS.**

**Two-Horse and Three-Horse Eveners Which Give Each Horse His Fair Share of Work—Some Devices Are Really Uneveners.**

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**T**HE two-horse doubletree is the simplest form of evener. With this the length of each end, i.e. the distance from the work hole to each singletree hole must be the same in order to give each horse his share of the load. If it is desirable to give one horse the advantage on account of his being light or soft, it can be done by giving him a longer side or, what amounts to the same thing, by shortening the other side.

singletree holes the amount of work which must be done by each animal is not affected by one getting behind, for in this case the length of both lever arms diminish equally.

There are several forms of eveners for three horses. The simple and

horses but should be kept solely for three.

Eveners for more than three horses abreast can easily be built up from either of the above models, the figure 4 is a decidedly better form to use as a model for a five-horse evener.

The three-horse eveners shown above if attached to a tongue would throw the middle horse squarely on the tongue, hence if used with tongued implements they must attach at one side of the tongue to some

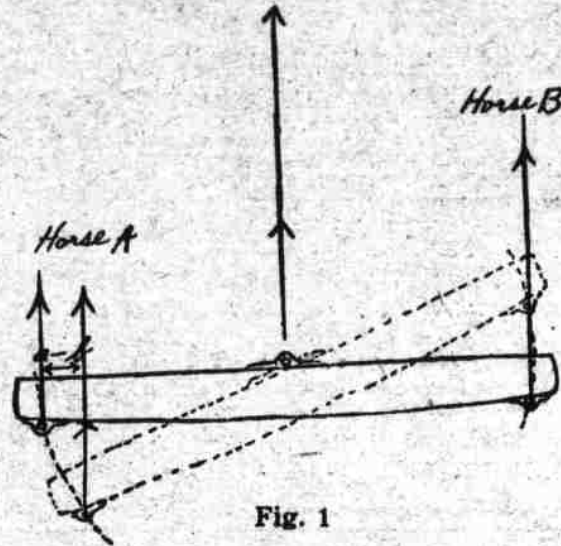


Fig. 1

This is a common principle and practice which every driver understands.

A fact not so generally known is that the work hole should be in line with the singletree holes because if not in line the horse that gets be-

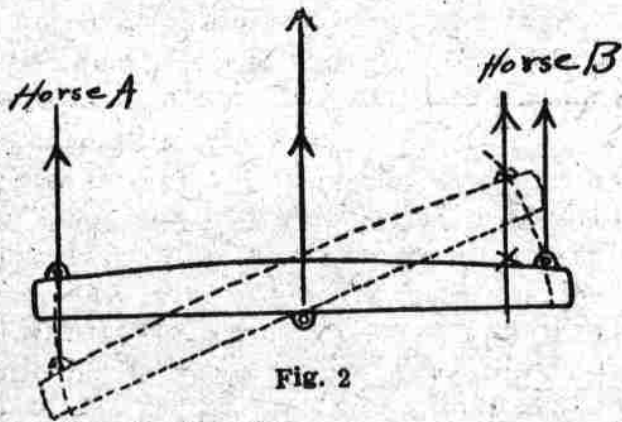


Fig. 2

hind will do either more or less work than the horse in front. Whether more or less, depends upon whether the work hole is in front of or behind the singletree holes.

Figures 1 and 2 are given to show how this is brought about. In figure 1 the singletree holes are at the back side of the evener and the work hole in the front side. If one horse falls behind, as shown by the dotted line, he must do more work than the other

light forms are the best. Figure 3 shows the most common three-horse evener. This is made up of a pair of

doubletrees, a singletree and an evener only slightly longer than a two-horse evener; these all connected

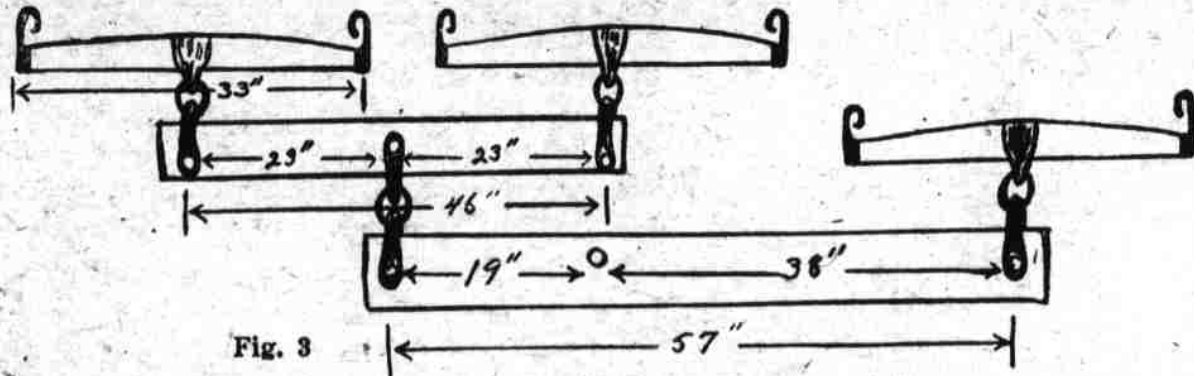


Fig. 3

horse as long as he stays behind for the other horse then has an advantage equal to the distance a-b.

Davidson and Chase have calculated that with the work hole  $4\frac{3}{4}$  inches ahead of the singletree holes one

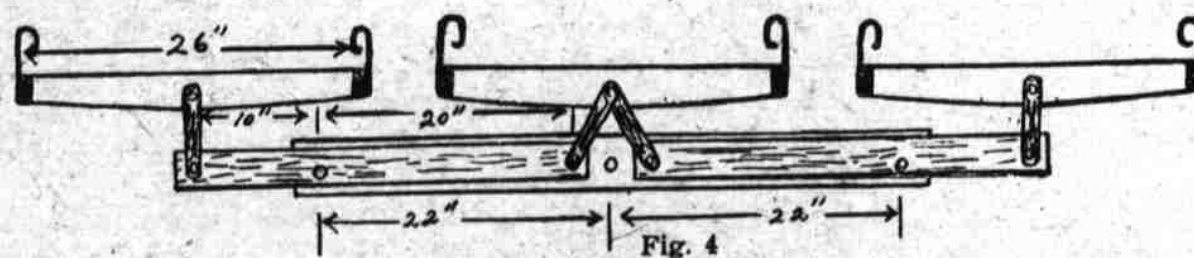


Fig. 4

horse eight inches behind the other must pull nearly nine per cent more. This is equivalent to giving the other horse an advantage of  $1\frac{1}{2}$  inches on a three-foot doubletree.

However with the holes as in figure 2, with the work hole behind the singletree holes, this condition is just reversed. In this case the horse that falls behind gets the longer leverage and hence the advantage. The careful driver will, of course, keep his animals as nearly even as possible in order to give both animals the same amount of work, or else he will use a doubletree with the holes in line. If the work hole is in line with the

with rings and clevises. The reason for this being the most common is doubtless because when not in use with three horses abreast it furnishes doubletrees for a pair of animals and a singletree for one worked alone.

Hence an evener with the work hole one-third the distance from one singletree hole to the other is all the additional equipment needed for working three together and this is cheaper than a complete three-horse outfit.

A more easily handled three-horse evener is shown in figure 4. It has the advantages of being light, compact, and well balanced. It can be made still more compact by laying the singletrees directly on top of the evener. Much of the usual dragging and swinging is avoided by using this evener. It should not be made to be taken apart for use with one or two

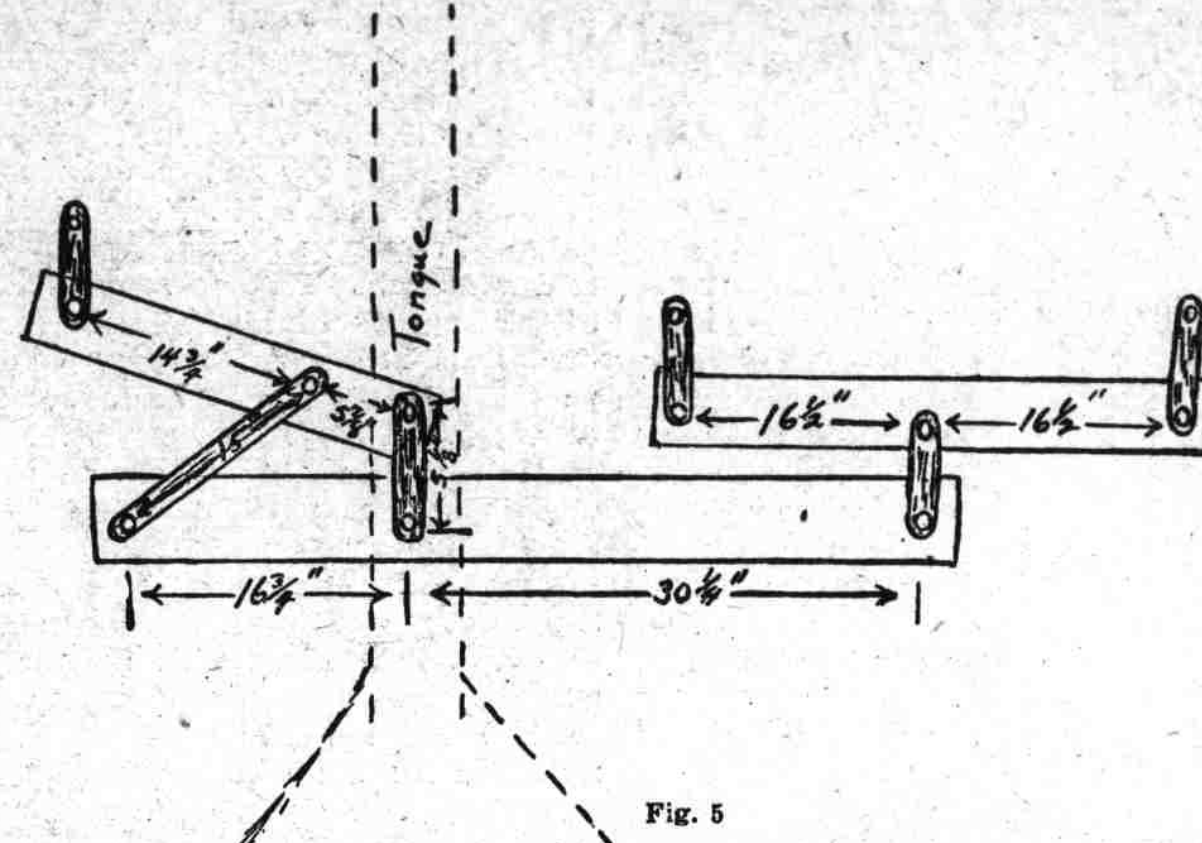


Fig. 5

other part of the implement. When the evener must be fastened to the tongue a different form of evener is

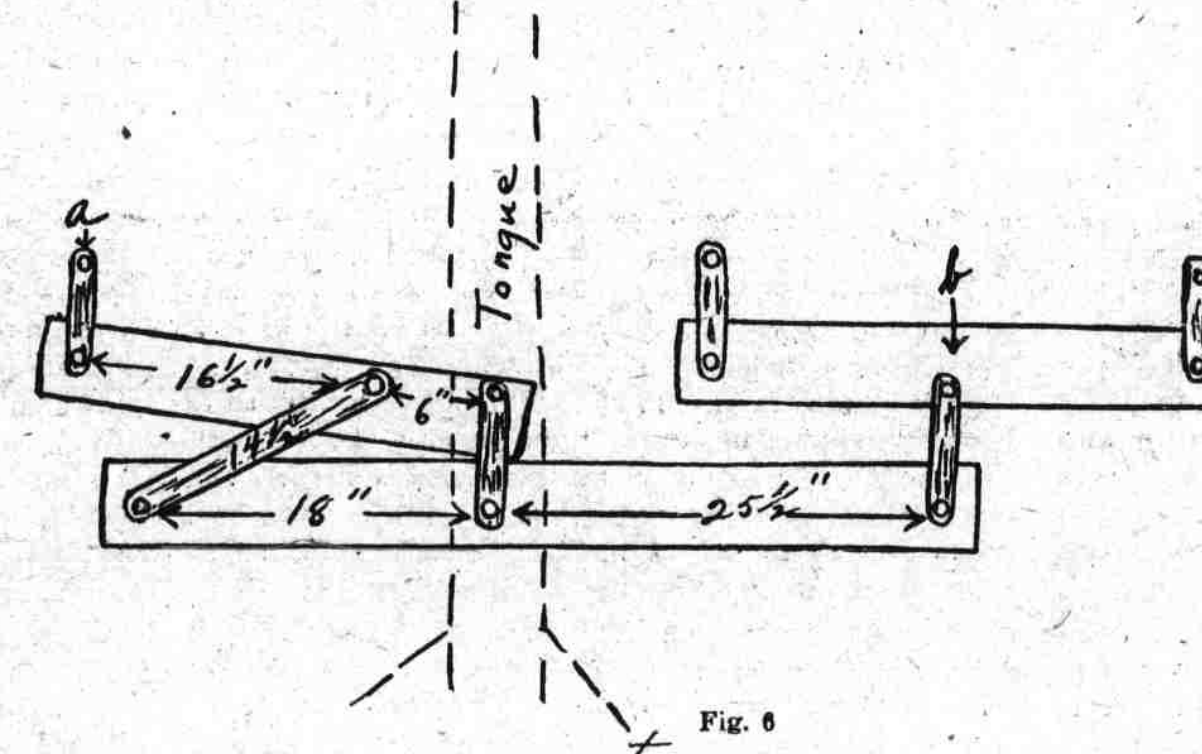


Fig. 6

used. Such a form is used on disk harrows as shown in The Progressive Farmer of March 30, page 10. The dimensions of this particular evener are given in figure 5. Theoretically this seems to be an evener; practically it is not an evener for it gives the single horse more than his share of the work. Yet it was purchased with the disk as shown on the page and issue of this paper above referred to. It is shown here in figure 5 to impress upon the readers of this article the fact that some so-called eveners which are in use are not eveners but horse-killers.

Perhaps it would pay each man to test the eveners before buying. This can be done with two simple spring scales. Hook one at (a), the other at (b), figure 6. Pull the one at (a) till it reads 25 pounds; the other one at (b) should then read 50 pounds. If it does not, the evener is not a real evener.

Figure 6 shows the dimensions of an evener of the same type which, it is believed, will give equal work to each of the three animals.

Several other forms of eveners work well on implements for which they are made but often do not fit on other implements. They are often too complicated for home manufacture.

**Misunderstood.**

"When Mark Twain was a young and struggling newspaper writer in San Francisco, a lady of his acquaintance saw him one day with a cigar box under his arm looking in a shop window. "Mr. Clemens," she said, "I always see you with a cigar box under your arm. I am afraid you are smoking too much." "It isn't that," said Mark. "I'm moving again."—Success Magazine.

**HARROWINGS.**

**M**R. Smith, in stating the causes of failures in the growing of vetch, on page 5 of the issue of August 3, also states the chief causes of failures with the other so-called winter legumes, crimson clover and bur clover. These causes are, "seeding at the wrong time, and lack of inoculation."

But it is not always easy to know what is the right time. If, however, these legumes are not sowed early enough to get some considerable growth before hard freezes come it is the part of wisdom not to sow them at all. It is true that there may be a scarcity of moisture the latter part of August and first of September in the northern part of the Cotton Belt, and while later sowing, a little later, may be advisable further South, even then too late sowing is the most common cause of failure, except lack of inoculation. We would rather take the risk of a lack of moisture than of too late seeding.

It is simply a waste of seed to sow these legumes without inoculating the soil and for that reason they should not be sowed except on a quarter or half an acre until a complete success and thorough inoculation is secured. After they have once been grown successfully then soil for inoculating large areas is available right on the farm and when this is true we would use not less than a ton of soil to inoculate an acre which has not previously grown the crop.

Harrow would like to have a small part of the money that is wasted, any one fall, in trying to grow these crops in the South. He could put it to a better use. Not only are the expensive seed lost, but those making the failures become discouraged and lose faith in these legumes and those who advise their use. Too high a value is not easily put on a good crop of any of these legumes, but those who advocate their use will accomplish more by giving instruction on how to grow them. In fact, we have had quite a plenty of advice as to what we can do and ought to do and now need a little more definite information as to how to do it. Sow at the right time and inoculate. These may not always be easy, but it is wasting seed to sow too late and without thorough inoculation. By the way, seed of both crimson clover and vetch are probably going to be cheaper this year than for the last few years. Both have been very high-priced for several years.

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Mr. Latham says: "I have seen harness patched up with hay-ties and other wires until you could hardly tell whether they had originally been made of leather or of wire." Who has not seen these same sights and been disgusted at the slovenly spirit which made such things possible? If there is any one lesson which we need to learn, it is that of neatness and care in our work and our living. Who has not seen schoolhouses and courthouses reeking in filth, pastures overgrown with weeds, buildings out of repair, with weeds and accumulated heaps of trash making the barn lots hideous. I have seen land turned out to grow weeds at the very doors of agricultural colleges and back yards that were veritable "junk heaps." In fact, the trouble seems to be almost universal throughout the South. We expect this sort of thing among some of the people everywhere, but among Southern farmers it is rare that we see conditions otherwise. If we can ever learn how a farm ought to look, we shall have learned a valuable lesson. If beautiful pictures have a refining, educational value, surely the slovenly conditions around most Southern farms must have an opposite effect.

HARROW.