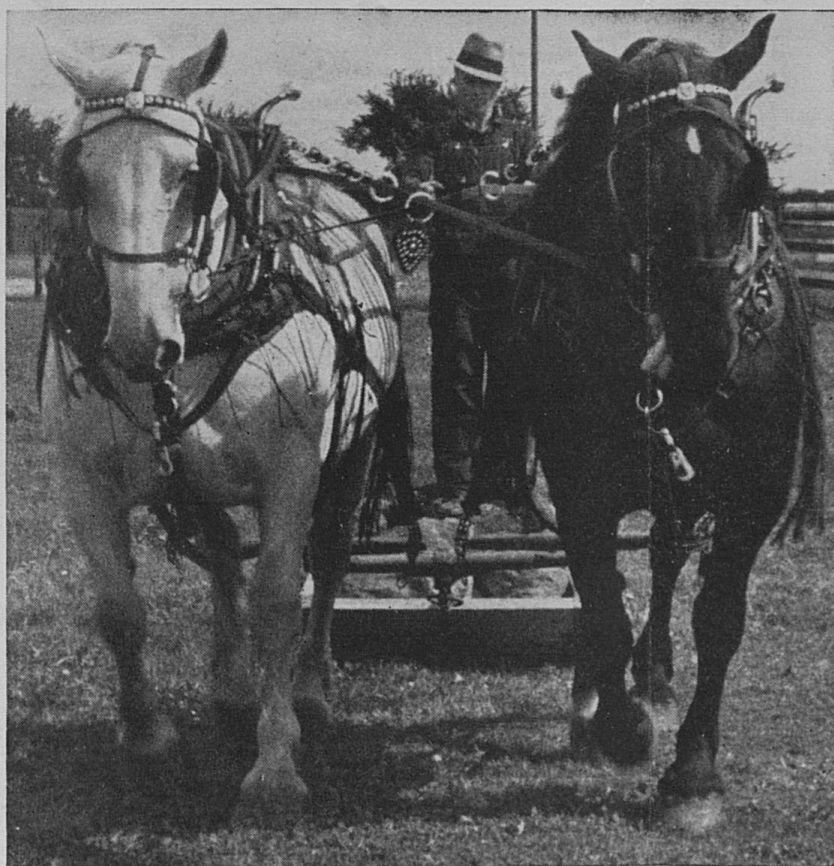


# Collar, Hames and Harness Fitting



**A well-harnessed team: Because the lines keep the horses' heads as far apart as the centers of their singletrees, they pull straight ahead**

**Circular 408**

**College of Agriculture and Home Economics  
Agricultural Extension Division**

Thomas P. Cooper, Dean and Director

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# Collar, Hames and Harness Fitting

Sore necks or sore shoulders on work horses and mules are due to ignorance or carelessness of the men who work them. Good farmers know this and are watchful to see that sores do not start.

## Fitting the collar

To avoid sore necks or shoulders, each work animal should have a collar of its own, that is used on no other. This is as important to work animals as individually fitted shoes are to a marching soldier.

There are three types of collars: regular, half sweeney, and full sweeney. A "regular" collar will fit long, flat, slender necks; "half sweeney" collars fit necks that are a bit heavier, slightly thick at the top; and "full sweeney" collars are intended for stud-like necks, very thick near the top.

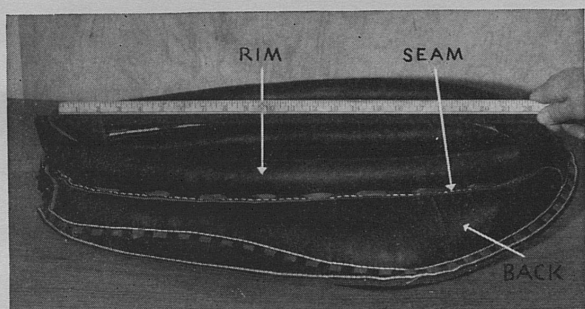
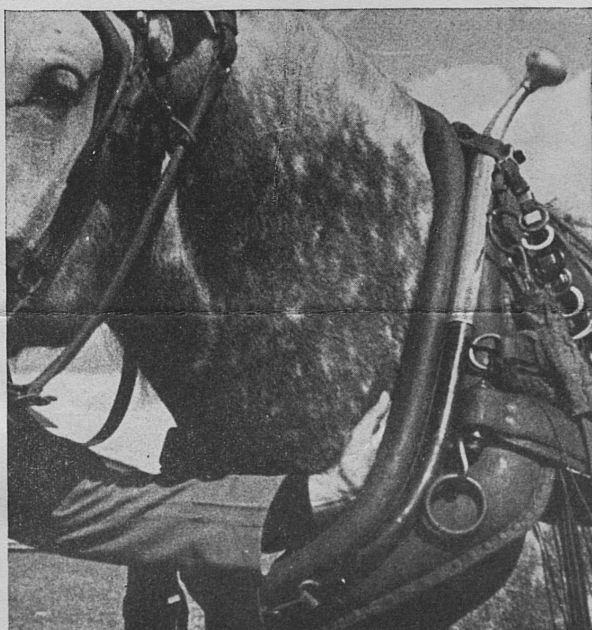


Fig. 1.— Collar parts: how to measure.

All-leather collars are best, but other kinds are serviceable for 3 or 4 years and sell at lower prices.

Fitting a collar to a new work animal should be done by testing with different collars till one is found that fits. If it is not practical to take the animal to the harness shop, try on collars that belong to other animals till one is found that seems about right, then measure for length as shown in Fig. 1. Collar sizes depend on length. A size 18 measures 18 inches from top to bottom just inside the rim, when the collar is buckled. Small animals take size 16 or smaller, very large draft horses size 24 or larger.

Fig. 2.— Collar is too wide.



A collar of the right size, when buckled on and pressed or drawn strongly back against the shoulders fits snug enough against the neck so that the fingers only, held flat, can be passed between the rim of the collar and the sides of the neck. Fig. 2 shows a collar that is too wide; the whole hand goes in, instead of fingers only.

When the collar is pressed back against the shoulders, it should be long enough for the flat hand to be turned up as shown in Fig. 3. Thus turned, the hand crowds against the throat. Measured with a ruler, there should be about 2 inches free space between throat of horse and collar, when the collar is drawn strongly back against the shoulders by a pull on the tugs—all a man can pull,—or by causing the horse to step forward against the load till the collar is firmly pressed against the shoulders.

Getting the right length of collar is very important. If it is too short, as shown in Fig. 4, or too long, as shown in Fig. 5, trouble will result. Too short a collar presses down on top of the neck and up against the throat when a load is being pulled: It makes the neck sore on top, and on heavy pulls it chokes the horse by pressing against the windpipe. Such choking may cause a horse to fall, and will discourage him from pulling with his full strength. In addition, too short a collar brings the point of draft too high, and sores high up on the shoulder may result.

Too long a collar, on the other hand, brings the point of draft too low and too near the shoulder point. This will make a sore very quickly, for it causes constant friction as the shoulder point moves forward and back. Too wide a collar, even when the length is right, will cause pressure too far away from the neck and too near the shoulder edge, and will cause a sore there.

The collar should be snug at the top where it rests on the neck—not too tight nor too loose. There should be space on the sides to run the fingers clear to the collar cap at top of collar, but no more. Collars that are too narrow at the top will pinch the neck and chafe it, causing sores on the sides near the top. If the collar is too wide at the top, it will work back and forth, sideways, chafing the top of the neck and causing a sore to start there. (Another frequent cause of sore necks is too much weight on the neck yoke, as when a mowing

Fig. 3.— Same collar as in Figs. 2 and 5, made to fit by using collar pad.

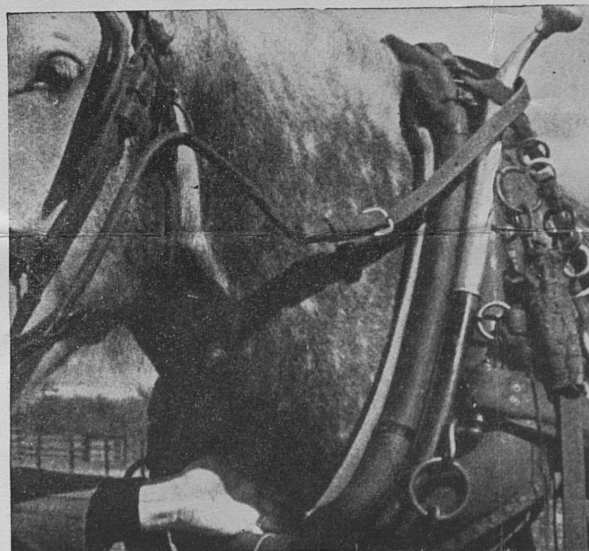




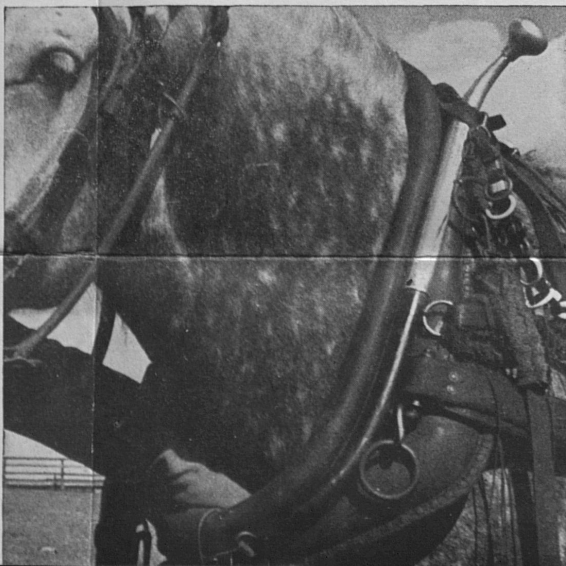
Fig. 4.— Collar too short and narrow.

machine or other implement has too light a driver to balance the weight of the tongue. The solution is to fasten a weight—a stone or concrete block—under the seat, so the combined weight of teamster and added object will balance the weight of the tongue, taking all weight off the neck yoke when the driver is on the seat. This takes off the downward pull on top of the neck of work animals. It is important to do this at the outset so sore necks will not start.)

After a collar of the right size and shape has been found, the face of it must be fitted to the exact shape of the horse's neck and shoulders, regardless of whether it is a new collar, or an old one to be used on a different horse. One good way is to soak the face only of a leather collar for an hour in a couple of inches of lukewarm water in a tub. If there is no tub large enough at hand, lay lukewarm wet cloths over the face to soften it. Then put the collar on the horse, adjust the hames and harness carefully, and work the horse moderately. The damp collar will adjust itself to the exact shape of the horse's neck and shoulders. If the collar face is not leather it should not be soaked (face only) for more than half an hour.

An owner or manager should check the fit of collars frequently. Collars that fit when work starts often prove too large, especially too wide, when horses grow thinner from hard work. A pad then should be used to make the collar fit. Pads

Fig. 5.— Collar too long. The hame fits the collar.



usually are 2 inches longer than collar sizes—thus a 22-inch collar would call for a 24-inch pad. They must be open at the throat.

To prevent sore necks and shoulders, it is absolutely necessary to get collars that fit the horse or mule, and then be sure that the hames are the right size for the collar. If you do not have and cannot obtain the right size collar for each horse, use collar pads to make the collar fit; but be sure the pads are new each season, clean and of the right size to make the collar fit the horse properly.

#### Fitting the hames

Correct hame adjustment is extremely important. If the hames do not lie in the collar seam for the full length of the collar, they do not fit. If the top hame strap bows across the top of the collar as in Fig. 6, rather than lying straight across the top as in Fig. 2, the pull of the tugs will spread the hames at the top and cause sore shoulders. If the hames are either too long or too short, they cannot be adjusted to fit the collar. The only remedy is a set of hames that does fit the collar. Hame sizes depend on the length from the loop where the top hame strap is used to the bottom loop, measured as a taut bowstring would. The sizes correspond approximately to collar sizes. A 24-inch collar should have a 23-24-inch hame, which will fit either a 23- or 24-inch collar. Even these must be correctly adjusted. In Fig. 7 the top hame strap is one loop too low, causing the hame to be away from seam (see fingers between hame and collar). If the hame strap at top is put one loop too high and left loose as in Fig. 6, it will cause the hames to drop too low, leaving a gap between hame and collar at bottom, shown by fingers in Fig. 6. This is apt to cause a sore near the shoulder point. If the hames are buckl-

Fig. 7.— Top hame strap set 1 loop too low; the hame gaps away from collar seam.

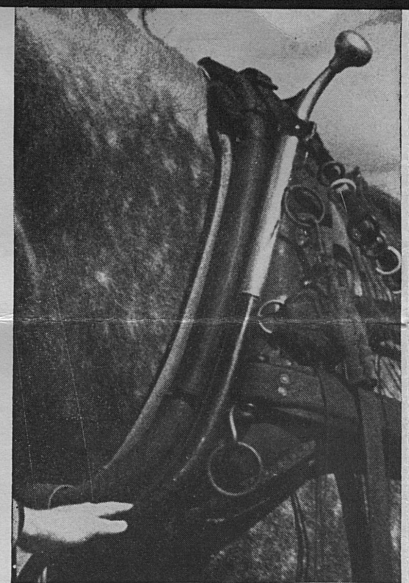
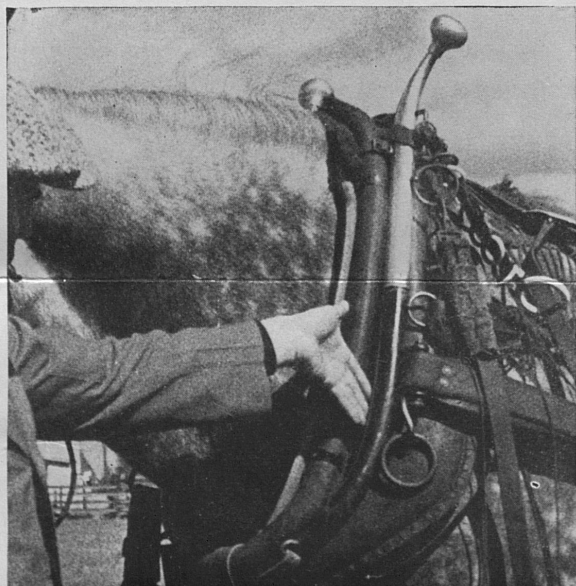


Fig. 6.— Top hame strap too loose, hame drops too low.

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ed too close together at the top they will cause the collar to pinch the neck and chafe it, making sores on the sides, near the top.

Too long a hame—for instance, a 24-inch hame on a 21-inch collar—will cause a sore shoulder. If the hame is drawn snug in against the seam of the collar at the bottom, the point of pull on the hame is above the true point of draft on the shoulder and will make a sore high up. If the hame is allowed to drop, so there is a gap between hame and collar at bottom as in Fig. 6, it will make a sore near the point of the shoulder. Too short a hame—say a 21-inch hame on a 24-inch collar—will make a sore near the point of the shoulder if the hame is drawn close to the collar seam at the bottom. But if it is set up high (adjusted to fit close to seam at top rather than at bottom of collar) it will make a sore high up and near the outside edge of the shoulder.

### Care of the collar, neck, and shoulders

Good horsemen keep the horse's neck, shoulders, and collar clean at all bearing surfaces. Be sure the mane does not work back under the face of the collar. Stop occasionally

at ends of fields to give horses a breathing spell, and at that time raise the collar away from shoulders, wipe off dust and sweat, and give the shoulders some opportunity to cool. At noon hour it will take a few minutes to remove the harness and collar, but it will pay, as it gives the shoulders an opportunity to cool. Look frequently to see whether the hair is wearing short at any point, as this is the first sign of chafing, which leads to an open sore. If the hair is wearing short, correct the adjustment of collar, pad or hames at once.

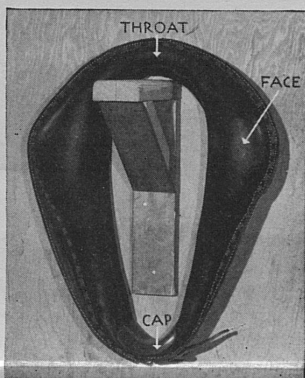


Fig. 8.— Collar parts: proper way to hang.

At close of the day's work, washing the shoulders of the work stock with a cold strong salt-water solution will help keep them in healthy condition. It is well to wipe the leather collar face clean with a damp cloth, and then wipe lightly with another cloth soaked in harness oil, as soon as the collar is taken off. Do not rub oil on collar cap, but keep it clean and smooth. If pads are used, or collars other than leather, wipe them clean but do not use oil. If unbuckled to take off, or put on, the collar should be held with both hands and the left arm passed under the throat of the horse, to prevent any strain on collar throat while the collar is unbuckled. The collar should be buckled before being hung up.

Collars always should be hung bottom-side up, face out as shown in Fig. 8, on a peg with round edges, so that the weight is on the throat of the collar, not on the cap. The cap is the separate curved piece of pressed sole leather, as smooth as glass, which rests on top of the neck to protect it from chafing. Every morning when the horse is harnessed, wipe the hand over the face of the collar again to make sure that it is smooth. These things take less time than it takes to tell them, but are the little things that go far toward keeping shoulders in perfect condition, if collar and hame adjustment are right to begin with.

Many farmers who are especially successful in avoiding sore necks or shoulders of their work stock, do the fitting themselves very carefully, and do not allow collars to be unbuckled again till readjustment is necessary, which they do themselves. Such men have their hired help or boys take collars off and put them on over the head as shown in Fig. 9. This may seem odd to men unaccustomed to it, but horses



Fig. 9.— Putting collar on without unbuckling.

become used to it very quickly and the owner or head teamster has the satisfaction of knowing that the collars are being used exactly as he adjusted them.

This plan works well with horses, but not with mules. Their long, sensitive ears make them object strongly and it is difficult to persuade them to accept the "collar over head" plan.

As the collar is widest at point of draft it should be put on as in Fig. 9, and turned over about 8 inches back of the poll, then slipped back to shoulders. In taking off, reverse the process. The halter, not the bridle, should be on in either case.

### LONG LIFE FOR HARNESS

Giving long life to harness is simple. All that is necessary is to keep it clean and well oiled with a good harness oil. Best results are attained by taking the harness apart, unbuckling all straps, washing each with a very mild soap and warm water, rinsing each strap in clean water as soon as it is washed, and hanging it up to dry.

By the time all straps are washed and rinsed, the first straps will be dry enough to oil. A sponge or soft rag will hold enough oil to make hand rubbing effective. Most farmers take their harness to harness repair shops where it is oiled by being placed in a wire basket and dipped in a large tank of warm harness oil for 15 or 20 minutes, then suspended above the vat till the oil drains off. This is fairly effective, but the man who takes his harness apart and washes it thoroughly before it is oiled gets a much better job, for dried sweat and dirt prevent oil from penetrating to the leather beneath.

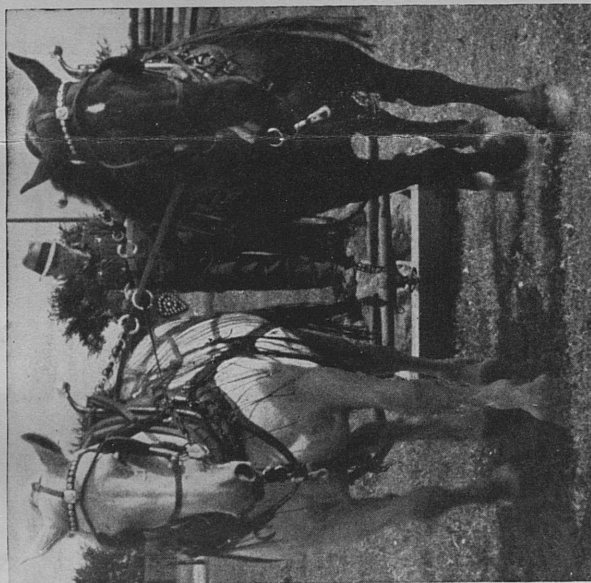
Repairing promptly likewise adds greatly to harness life. A leather punch, some rivets, an awl, some linen thread and harness wax will enable anyone who has seen harness repairs done, to make simple repairs as soon as loose stitches appear. The old adage—a stitch in time saves nine—is especially true of harness.

Longer life of harness also is obtained where harness is hung in a harness room away from the ammonia fumes rising from stalls; but this seldom is considered practical for lack of time, and harness generally is hung on a peg on the wall about 8 feet behind the work animal it is used on.

It is impractical to wash, oil and repair harness in cold weather unless a warm room is available. Leather and oil must be warm for a good job.

At present, harness repair shops have neither time nor help to wash harness; hence it is up to the owner, if he wants a real good job, to have it taken apart, washed and all dirt and sweat scraped off the wet straps with a sharp edged piece of hard wood (never use a knife to scrape leather), before taking it to the harness shop to be dipped in a tank of warm oil. Many owners prefer to oil their own harness, but after doing it a few times, have a higher appreciation of the valuable service rendered by their local harness shop.

# Collar, Hames and Harness Fitting



A well-harnessed team: Because the lines keep the horses' heads as far apart as the centers of their singletrees, they pull straight ahead

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## FEEDING OF FARM WORK HORSES AND MULES

Clean and bright corn, oats, or crushed barley, green, leafy, sweet-smelling hay, plenty of salt and fresh water with access to good pastures at night and on Sundays and rainy days, are all that are needed. Moldy, musty feed will kill horses and mules. One-third to one-half of the hay fed should be alfalfa, lespedeza, or clover.

The amount to be fed will depend on how hard the work is and what pasture is used. At ordinary farm work 1 pound of grain and 1.2 pounds of hay per day per 100 pounds live weight, is ample. This means 14 pounds of grain and 16.8 pounds of hay each day for a 1400 pound work horse or mule. Where the work animals are turned out nights and Sundays on a good mixed pasture that contains several different kinds of grasses and legumes, they will of their own choice eat less hay, usually by half; but even then they should be allowed whatever hay they will clean up morning, noon, and evening. When pasture contains abundant legumes, grain can be reduced one-fifth.

Work animals turned out on pasture at night and on off days sweat more when at work, but are healthier, are much less apt to have digestive upsets, and their feet, eyes, and bones keep in better condition. They are cooler and more comfortable in hot weather, require less grooming, can get water and salt whenever they feel like it, require no bedding, and but little work in cleaning stables.

See Kentucky Circular 306, "Workstock," for further details on breeding, feeding, and management.



Fig. 10.— Well-fitted harness. The back band keeps the traces pulling at right angle to shoulders. Harness should fit animals, but should not be tight enough to cause friction anywhere.

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