- (f) Colters and their effort on draft,
- (g) Size of furrow.
- (b) Line of draft.

The stubble moldboard having a sharp, quick turn, pulverizes the soil to a greater extent than the breaker bottom. It does more work and therefore takes more power. The steeper the moldboard, the more power will it require.

Condition of the Plow

A plow frame with loose bolts and worn wheel boxings cannot be expected to do good work. Your wife does not let her sewing machine get all loosened up. She oils it and takes care of it; that is why it lasts a lifetime. Manufacturers are endeavoring to eliminate this trouble by specifying spring washers on every bolt and in many cases hot rivetted frames are replacing those held together by common bolts and nuts, which will work loose.

Sharpness of Shares

The power absorbed in severing the furrow slice demands that shares be not only sharp but properly sharpened. Sanborn reports a difference of only 6.7 per cent. in favor of an old point resharpened over a dull point on the same plow, but an advantage of 36 per cent. in favor of a new point over the old point resharpened. At all events farmers should not waste on dull shares. Great care should be taken when sharpening shares to return them with the same "set" The same amount of suction both downwards and towards the land.

Scouring Qualities of the Plow and Soil

There are many different shaped moldboards for different soils. Right here let me say that unless a moldboard plow will not scour, a disc plow should not be considered. There are districts where the heavy gumbo soil demands disc plows. "Prevention is better than cure"—when you put your plows away next fall smear them well with thick oil and they will scour easier when started off the following spring. Care must be taken to see that shares are not warped. If they are, a good joint, is not made between the share and the moldboard thus causing trouble. When purchasing a plow pass the finger tips up the moldboards in the direction that the furrow slice will pass, and you readily detect rough places.

Various Adjustments

The adjustment of the hitch will be dealt with later. The rear furrow wheel must be set outside the landside of the plow, that is towards the unplowed ground, so that the landside will be relieved of some friction. It takes power to overcome friction. Sliding friction requires more power than rolling friction. When plowing four abreast, that is, one in the furrow and three on the land (any further reference to four abreasts is intended to indicate this method of hitching) the front furrow wheel must be given "lead" to the "land." (See figure 3.) The dotted lines show the position the plow tends to take. When plowing tandem it is sometimes necessary to give a little "lead" away from the land. This was covered fully in the first issue on this subject.

Colters and Their Effect on Draft

Experiments have shown that a colter reduces the draft from 11 to 25 per cent. on the draft. The proper set of this attachment has also been covered.