

which bring twins and raise strong, healthy lambs will likely transmit their breeding qualities to their progeny. A new ram lamb should be tested for breeding qualities on some of the old ewes whose capabilities are already known. This testing-out of a new sire is quite important if progress is to be made.

*Indbreeding and Line-breeding.*—The early improvers of the mutton breeds had to practice indbreeding, as they had only their own flocks to select from at first. Indbreeding is the mating of very close relations, as of sire and daughter. Line-breeding is the mating of relatives not so closely akin, although coming from the same ancestry. The advantage of this kind of breeding is that the good qualities of



An undesirable sire with narrow chest and poor conformation.

the family are strongly perpetuated. The blood is concentrated, and other characteristics are not introduced because outside blood is not used. The disadvantage is that any defect in the individuals, such as weakness of constitution or poor breeding qualities, if such is present, will be sure to crop out strongly. The defects, as well as the good qualities, are brought out strongly by indbreeding. There can be no gain in concentrating the blood of any but animals of the highest excellence. "Breed the best to the best" is always a safe maxim. Cross-breeding should not be practised unless in special cases, such as when mutton rams are crossed with Merinos.

#### CARE OF THE FLOCK IN THE FALL.

Starting with the breeding season, the management of a flock in autumn involves three important things—the selection and culling-out of the ewes; selection of the ram; and mating at the proper time.

Aged ewes should only be kept if they are known to be good breeders and as long as they are not past profitable age, say six years as a general rule. These undesirables, as well as those with spoiled udders, should have been disposed of in spring. In a small flock the ewes will all be known individually to an interested owner. A large flock should have book records kept by means of ear-marks. It must be remembered at this time that the best mothers are the best milkers. These ewes are liable to be low in flesh after weaning, say, twin lambs, and will show up poorly against a fat ewe which has had one lamb and raised it on little milk. The thin ewes are not usually the culls. Ewe lambs are not bred in their first year under