same as obtained relative to the automobile ten years ago, but automobiles are now standardized, until the situation that confronts the possible buyer of a machine is one largely of the number of cylinders, the number of passengers it will carry, the kind and color of the upholstery, and, lastly but not least, the ar ount that he has to spend.

Would that such a happy condition of affairs existed in the tractor field at the present time. What a relief it would be to all concerned. It does not seem very likely to obtain very soon for tractor manufacturers do not seem to be gregarious in their habits, or to realize that they have a community of interests that needs safe-guarding, which will create an industry that will be second only to the automobile.

Something has been started along this line by the organization of a society of traction engineers, but unfortunately as yet it has borne no fruits, and for the reason possibly that each of its members is so busy getting out his individual type of machine that he is sure is to be the standard of the future.

Now this is somewhat of a deplorable condition, although not a hopeless one, but in the writer's opinion exists at the present time, and tractor man that I am, when asked by a prospective purchaser what make to buy, candidly I am at a loss what machine to advise, for none at present combine enough of the essential features.

What of the successful tractor of the future, and what are some of the qualifications? In the first place, it must be as nearly dust proof as possible. An enclosed transmission with roller bearings, cut steel gears with two and preferably three speeds forward. The motor must be of a heavy duty type, with plenty of reserve power to carry its heaviest load. The light high speed automobile motor cannot measure up to the requirements of the tractor for the reason that on the average the automobile motor does not have to deliver over twenty per cent of its rating, while the tractor is using at least ninety-five per cent plus. They are not any more interchangeable than the heavy dray horse and the light driver. Neither can do the work of the other with any measure of success, for the kind of work each is required to do is of an entirely different nature.

All unnecessary weight should be eliminated by the use of cast and structural steel, as every additional hundred pounds requires power to transport it that can be applied to the draw bar where needed. Contrary to the generally accepted idea, weight in a tractor within certain limits is not



necessary the same as in a locomotive where the increased horse power demands a proportional increase in weight to give it the necessary adhesion to the rails, while a tractor only needs sufficient weight to hold the lugs firmly in the ground, and any additional is excess baggage, a positive detriment, packing the soil, and increasing the fuel consumption.

In summing up, the tractor of the future must be high grade in every particular and will of necessity command a price commensurate with first class workmanship and material. It may have one or more drivers, a two or more cylinder motor, but it must come up to the standards as set forth in the preceding.

Few machines as yet have been placed on the market that measure up to this high standard, although some manufacturers see the need and are trying to meet this demand. The writer is in position to state that such machines will be built and obtainable

in the near future, and when they do all of the old type will go into the discard where they belong. They have served a useful purpose, however, for they have taught the farmers the possibilities of the medium sized tractor, and the manufacturers that nothing but the best can survive, and that he must raise all of his standards above any practice that has produced satisfactory results relative to a farm machine in the past