

few years it became the custom to give, also, the name of the sire in each case. This publication has been continued, with little change in form or matter, to the present day, and the record of performances and the names of performers therein contained furnished the basis of the English Studbook.

A collection containing the pedigrees of all distinguished horses that could be obtained was published in 1786. Subsequent to this, attempts at a compilation of pedigrees from the racing calendar and other sources was made, but it was not until 1791 that the English Studbook took its present form.

The standard of admission to the first volume of the Studbook appears to have been simply creditable performance upon the turf, as shown in the "Racing Calendar," it being taken for granted that no horse could be a creditable performer that was not well bred. The first volume, compiled upon this basis, has furnished the foundation of all subsequent ones, and few mares have been admitted to registry that do not trace on both sides, without admixture, to an ancestry that is recorded in the first volume, or to subsequent importations of Oriental blood.

It is the general opinion of the best-informed English turfmen that the Oriental stallions which contributed most largely to the formation of the English Thoroughbred were Place's White Turk, the Ryerly Turk, Lister's Turk, the Darby Arabian, Curwen's Barb, Lord Carlisle's Turk, the Godolphin Arabian, the Leeds Arabian, Honeywood's White Arabian, Combe's Gray Arabian, Bell's Gray Arabian, D'Arcy's Turk, Selaby Turk, the Ancaster Turk, Compton's Barb, the Toulouse Barb, Stawyan's Arabian, Lother's Barb, Taflolet Barb, Hatton's Gray Barb, Honeywood's Arab, Sedley Barb, and Wellesley's Arabian. Of these, Lister's Turk got Brisk and Suske; Darby's Arabian got Flying Childers; Carlisle's Turk got the Bald Galloway, and Godolphin Arabian got Blank Regulus and Code.

The "Royal Mares" were imported Barbs. Of these Oriental sires it is generally admitted that the Godolphin Arabian, imported about 180 years ago, is the last that has proven of any benefit to the English stock, and, while this blending of the blood of the Orient furnished the foundation, there cannot be any doubt that the care and skill of the English breeders in selecting and coupling with the stoutest, best and fastest for successive generations, has been a more potent factor in the formation of the breed as it now exists than the Arabian and Barb blood to which tradition has ascribed its superiority.

Many importations of the choicest blood of the Orient have been made both to England and America within the last half century, and yet scarcely a name among them can be found in the pedigree of a horse that has distinguished himself upon the turf.

The Arabian horses possess undoubted beauty of form and grace of action, but are inferior in size to the average Thoroughbred, and their produce from the best mares have been failures both in the stud and on the race-track. In every instance where the speed and endurance of our Thoroughbreds have been tested side by side with the Arabian, they have proved superior. Hence, recent crosses of Oriental blood, while they do not exclude from the Studbook, are not looked upon with favor by the best breeders of England or America. The Thoroughbred of to-day is greatly superior to his Oriental ancestor in size, speed, endurance and other useful qualities, excepting, possibly, beauty and docility.

The Thoroughbred, having been bred for so many generations with especial reference to speed, we are not surprised that he has acquired characteristics of form and temper that in most cases render him undesirable for the uses of everyday life. He has been bred to race, and the form best adapted for speed, and the mental qualities which most certainly ensure the pluck, courage, energy and determination so essential to success in a hard-fought race, have been the qualities aimed at by breeders, and the standard by which selections have been made.

Such a course of breeding has made him rather too lithe and light of form, and too nervous, excitable and impetuous for ordinary business purposes, but in speed, endurance and resolution he surpasses all other breeds, and there is scarcely a race of horses in existence, except draft horses, but may be improved by an occasional infusion of his blood. This fact is almost universally recognized, and nearly all countries have for many years regarded the "English Thoroughbred" or "Blood Horse," as the basis of all subsequent improvements.

CHARACTERISTICS OF THE THOROUGHBRED

In general appearance, he is full of quality, without the flash appearance and action of many breeds of harness horses. There is an absence of bulkiness. His bones, muscles and tendons are strong and very compact; not so massive, but harder and of finer quality than in other breeds.

Head.—Rather small; ears fine and pointed, with lively movements, tips approaching each other when pointed forward; cranium prominent;

forehead broad and flat; eyes prominent, large, bold, but not vicious in expression; nostrils large and flexible; lips firm, muzzle small and tapering; muscles of cheeks small and hard; jaws wide apart at angles.

Neck.—Clean-cut and rangy; crest well developed and whipcordy, but not so heavy as in other breeds; head neatly attached to neck, but not too fine at throat. Except in very fat stallions, there should be a well-marked depression where the neck ceases and withers commence.

Withers and Back.—Withers well developed, high and fine, and sloping gradually to the back; back straight and rather short; loins broad and strong.

Croup.—Rather long, and slightly sloping; dock coming out high up, fairly well clothed with straight hair of fine quality, and carried well out from the body, and straight.

Chest.—Somewhat cone-shaped, broad base behind, apex between the shoulders, where he is

with muscles well defined, and extending well down towards hock.

Hock.—Deep and strong in all directions, clean and angular, posterior border straight, point well defined.

Hock to Foot.—Same as knee to foot, but bone wider and flatter than fore cannon, and not pinched below hock.

Foot.—Same as fore foot, but rather narrower and longer, and he stands with toes turned slightly outwards.

Color.—Bay, brown, chestnut, black or gray, with reasonable modifications. Reasonable white markings not objectionable.

Skin.—Soft, mellow, loose; hair fine, straight, and silky.

Temperament.—Mild, not vicious, energetic, inclined to be impetuous, not too nervous.

Action.—Prompt, free, elastic, good walker, free shoulder action, not too much knee or hock action, but going rather close to the ground, especially in the canter or gallop. Must not paddle or roll fore feet, or go close enough behind to interfere, neither may he go wide behind.

Weight.—Say, 1,000 to 1,300 pounds.

Height.—Say, 15½ to 16½ hands.

"WHIP."

Sidebones.

Many opinions are heard from horsemen, or would-be-considered horsemen, regarding this unsoundness, and its importance. No animal with it should be used for breeding purposes. To aid the uninitiated to get a proper understanding of this disease, let him get a foot cut off at the fetlock, and skin down to the hoof. You will then see a cartilage, which is a kind of prolongation from the bone inside (calf or pedal bone), and resembles the cartilage which prolongs the shoulderblade of mutton you may have noticed on your table. Unless you get an accurate knowledge of the position, thickness and "bendability" of this cartilage in a sound foot you can never become a judge of sidebone. Sidebone is a conversion of part or all of this cartilage into bone, by which, of course, it loses its elasticity, and will not bend when compressed by your thumb. In light horses it is very bendable, but in thick, coarse pasterns it requires much education of the touch to be able to decide in recent cases, where only a slight ossification (or, as it was recently put by an agricultural-college student at veterinary classes, "bonyfication") has taken place.



English Thoroughbred Stallion, Cylene, by Bonavista.

narrower in proportion than other breeds; ribs long and well sprung, deep from above downwards, especially at the girth; breast muscles hard, and projecting prominently forward.

Shoulder.—Quite oblique from above downwards and forwards; muscles hard and well developed, but not bulky.

Forearm.—Long and strong, with muscles extending well down the limb.

Knee.—Straight, clean and large in all directions.

Knee to Foot.—Cannon short, broad, clean and flat; ligament and tendons prominent and well defined, an absence of long hair; fetlock joint large and strong; pasterns rather long, and of medium obliquity. Limb must not have too



English Thoroughbred Mare, Sceptre, by Persimmon.

much of a pinched or tied-in appearance below the knee.

Foot.—Rather small and round, strong wall, sole slightly concave; frog well developed; heel broad, strong, and not deep. Must stand without turning toes either inwards or outwards.

Haunch, or Upper Thigh.—Broad, strong and muscular; all muscles well defined; thick through hams.

Stifle.—Strong and clean.

Gaskin, or Lower Thigh.—Long and strong,

LIVE STOCK.

The Plague of Flies.

The fly season is with us again. Much discomfort may be saved the cows, and a shrinkage in the milk flow and of cash returns avoided, by the application of some specific for the prevention of this annoyance. Among the preparations recommended for this purpose is the following by Prof. H. H. Dean, of the Ontario Agricultural College: Fish oil, one-half gallon; coal oil, one-half pint; crude carbolic acid, four tablespoonfuls; mixed, and applied to all parts of the cow except the udder, once a week, will keep the flies from about twenty-five cows.

Kansas State Agricultural College recommends the following mixture: Resin, 1½ pounds; laundry soap, 2 cakes; fish oil, one-half pint; enough water to make three gallons. Dissolve the resin in a solution of soap and water by heating, add the fish oil and the rest of the water; apply with a brush. One-half pint of this is considered enough for one application for a cow. At first it will perhaps be necessary to give two or three applications per week, until the outer ends of the hair become coated with the resin. After that, retouch the parts where the resin is rubbed off. Still another preparation that has been recommended is: Fish oil, one gallon; crude carbolic acid, two tablespoonfuls.

Altering Ruptured Pigs.

This is a question that often engages the attention of the pig-breeder, and if performed when young—when on the sow is the best time—usually turns out all right. The get of some boars seem particularly prone to this trouble, and it is, judging from our experience, well to consider this weakness, in a sense, an hereditary one. The operation of emasculation, in any of the domesticated animals, needs to be attended with scrupulous cleanliness, and, if possible, the pigs operated on should be put out on grass or in a clean pen. The farmer should be provided with a surgical (curved) needle—the ordinary straight one may be made to answer, but it is more awkward to handle—and some clean thread, and a basin containing some antiseptic solution, carbolic or coal-tar dip. Have some one hold the pig back on the ground, the attendant straddling the pig, sitting on him lightly. The operator then works