were, therefore if confined by the bar of the shoe its duties are interfered with. It is placed there as an easement to the tendon that passes under the navicular bone, and is fastened to the coffin or pedal-bone, and also as an easement to the joint in which the small navicular bone plays an important part. Though the foot is often involved, it is rarely that the lameness, the limping, or evidence of pain, comes from trouble in the foot itself. The limping, which is the language of pain, is caused by trouble to the joints, tendons or muscles—quite frequently all three will be found to be involved. The primary cause is always, barring some infrequent accident, an unbalanced foot, but there may not be, and rarely is, any pain or discomfort in the foot itself, except in sympathy with other causes of discomfort. Keep all unnecessary appliances off of the feet. By examining carefully nature's horny box, the foot, it will be discovered that she has supplied it with everything that is necessary and useful, therefore follow closely natural laws, and the desired results will be attained. All that is necessary to be done by man, in addition, is to rasp off the wall at surface, to bring the foot into proper proportion and to the proper angle to the limb it supports, then to nail on to it an iron shoe made from narrow webbed shoe metal, for, having left all the natural elements on the inner part of the surface, there can be no need of any wide shoes, bar shoes, steel plates or anything else for "protection" (?) to the foot.

It is really astonishing to notice how the ingenuity of man is in constant demand to invent appliances to mystify himself out of a rational treatment of this simple, very simple foot. It is only a small box, containing two bones, and the larger portion of a third one. Is it not strange that people surround it with so much mystery? All that is essential and useful in treating the pedal extremity is to rasp the wall at surface so as to give proper proportion to the foot and place it at a proper angle to the limb it supports. Rarely need any other part of the foot be touched by rasp, and never by knife—only as previously explained—to keep the locomotive power of the horse in a perfect state of healthy action, so that the whole articulating system will be smooth and frictionless. It is so simple, so easy—to those who have studied its construction—to keep the foot right, that it seems to the writer very, very queer, that people should puzzle their brains to the utmost, and grope around in the dark to find out how to do it. They will insist on surrounding this simple affair with so much mystery that they become puzzled and put at their wits' end, when a simple and plain course would show them just what to do and how easily it could be done. If the animal "hitches" behind, look at the foot and its unbalanced condition and improper angle to the limb will show at a glance the cause of the hitch. Put the foot into proper shape and at a proper angle to the limb and the comfort of action will at once appear, and so soon as the joints, tendons and muscles can—as they will, as quickly as possible, adjust themselves to the changed condition—the hitch will disappear. All troubles to the limbs, such as spavins, curbs, ringbones, etc., are directly traceable to unbalanced feet, except they may be infrequently caused by accident. The habit of forging is caused, almost invariably, by the unbalanced condition of the fore feet, rarely or never is it caused by the hind feet being at fault. In a great majority of cases the fore feet of the forger will be found to be too deep, possibly too long, also, in their front part, and not infrequently too low, too little depth, at the heels. Occasionally, though very seldom, this faulty action is caused by insufficient depth at the front of the foot and too great a depth at back part of it. For it must be borne in mind that as the coffin or pedal-bone is unduly depressed or unduly elevated in its position in the front or in the back part of the foot, so will the action, gait, be seriously interfered with, resulting in "forging," as the outcome, frequently, of either of such misplacements.

Scalping is more frequently caused by the front of the hind feet being allowed to grow too long and too deep, and of too little depth at the heels, though undoubtedly the fore feet will be found sometimes at fault also. Knee-hitting is caused by the offending foot being turned out, that is, what is called toeing out. Such a foot will be found to be too high from the outside heel, around the whole outside of the foot, to the toe, and sometimes too high on the inside heels also. Elbow-hitting is most generally caused by the feet being too long or too deep, sometimes both, in the front part, and of too little depth at the heels, though it may be caused—and the writer has seen such cases, but not often—by a foot that is extremely short in its front part and of too great depth behind. (Remarks on the proportion of the foot, under "forging," will apply here also.) Wrong proportions of the foot make a faulty articulation at the base, that is, in the first joint, that of the smaller pastern bone and the pedal or coffin bone. When the first or base articulation is wrong the succeeding joints may not, in fact can not, work correctly, and the action of the tendons and muscles will, in consequence, be faulty also.

When the foot has been pared to proper proportion, and so as to be at a proper angle to the limb, it should have adjusted to it a narrow webbed shoe of even thickness from heel to heel; no calkins, either for fore or hind feet, except the shoes may need sharpening with calkins for the snow path. The three cuts here given—taken from the writer's book on horseshoeing—represent three different views of a foot very nearly in perfect proportion, and the shoes should be adjusted to such a foot exactly even with the wall all the way around, from heel to heel. It may be well—or, rather, it would be better—particularly for the shoes of the fore feet, to bevel them outward on the foot surface, slightly only, from about the last nail-hole in the shoe back to point of heels, so that the natural expansion of the foot will not be interfered with.

R. BOYLSTON HALL.

A FEW HINTS ON SHOEING.

A READER of THE HORSEMAN expresses himself on the subject of horseshoeing as follows: One of the most important points in connection with training a horse is his shoeing; that he should be shod properly, and that his feet are in a healthy condition, is a matter of great importance. Bad feet and improper shoeing do not get a horse up to the wire where the money is hung up. Some people claim that colts should not be shod until two years old. My idea to shoe a yearling is to shoe him with tips during mud time, or while in training. His feet then have a chance to get their natural growth. Not only that, but his feet will not be pinched up, nor his heels contracted. This will not apply to mixed gaited colts. When you get ready to square them away I should try a very light shoe on a mixed gaited colt at first, and if I found he needed weight I should put it on. Many colts are ruined by weight. For instance, a four-ounce weight is used where a two-ounce weight would answer. A two-ounce weight is equal to four ounces in the shoeing. A colt should never be shod with a heel calk on, the inside of the hind foot. He should have a short quarter calk on, three-quarters of an inch from the heel of the shoe, inside. If it is to be sharpened sharpen the forward corner next to the toe and have the back of the calk round. This will prevent calking and standing over on the foot. I have found it also works well on older horses.

The first thing to get is a good mechanic that can fit the shoe to the foot, not the foot to the shoe, as I have seen done in a number of cases. The result of this kind of shoeing in older horses is that the wall of the foot will grow over the shoe, leaving all bearing on the sole, and no bearing on the wall, where it should be. See that your horse's foot is made level, then that the top of the shoe is also level. Do not have your shoe filed on top, and do not have a rasp run around the edge of the hoof to make a fancy job. By so doing it makes a wedge for the foot to grow out over the shoe and takes all bearing off the wall. My idea is not to have the fore shoes lay flat. They should have some spring from the heel to the quarter, that gives the frog a chance to spread while in motion. Do not have anything on the foot rasped but the clinches, then the foot will get its natural growth.

THE ENGLISH HACKNEYS.

OWING, I presume, to the small number of horses of this breed in the west THE HORSEMAN has not devoted much space to discussions of their merits. As one who, for the last five years, has studied, owned, ridden and driven them, after a long experience of thoroughbreds, trotters, coachers and mongrels, I ask permission to say a few words in their behalf as the best horses for profitable breeding. Note the qualification. Personally I like best the thoroughbred. He is the best saddle horse, and I am fond of the saddle. But, by heredity, he is a galloper and of high mettle. By instinct he is a racer, as the game cock is a fighter. You can not depend on him to breed harness horses, or more than one in twenty of race winners. Nineteen failures to one success do not pay.

I have tried the trotters, Hambletonians at that, and nearly pulled my arms from the shoulder joints driving them. Are too fast by half for the road and pleasant driving. Fit for racing only. Went into that. Did well, taking second money. Was unfortunate enough to win; made a record. Won again and got a lower record. Soon got to a point where there were few competitors and few races to be had. My every success ruined my profits. Expenses exceeded receipts. It costs a great deal to rear and train a trotter. Unless he is very fast nobody wants him for a racer, and unless he is a racer nobody wants him for the road. A breeder who has twenty trotters may have one or two successes.

French coachers are of too many strains of blood. Some are beautiful, but all are of mixed blood and do not breed true to type. In fact, there is no type to breed to. The same is true of the Vermont horses, the so-called Morgans. Look at Battell's Register, and among the hundreds of photographs there are not half a dozen alike. All breeds are intermixed, from the Canadian pony to the thoroughbred. The Mecklenburg coach horse is a good one, built on Hackney lines. It has long been carefully preserved as a breed. I have seen several, all of them good. There are very few in this country. I wish there were more. Time was when money was made by breeding large draft horses. There is still a limited demand for them for slow and heavy transportation. But too many of them have spongy hoofs, and are ill fitted to make good time on turnpike roads. A farmer can not afford to spend a day traveling twenty miles, and a drayman likes to trot sometimes on the cobblestones. The large and slow draft horses bring low prices.

The surest sale and the largest profits to breeders are in matched coach or carriage horses or buggy horses weighing from 1100 to 1350 pounds. They should be good roadsters and have size, substance, style and good temper. These are always in demand. The horses exported to Europe for cavalry purposes are of this kind. All the sound ones can be sold at fair prices. For breeding horses of this description, the English Hackney, is the best sire. He comes of a horse, known several hundred years ago as the hardy trotting horse of Norfolk, and in the last 150 years has been shaped into a special breed by the care and skill of the breeders of Norfolk and Yorkshire. The Hackney type is distinct from every other. Every Hackney is like every other in important points. The square buttocks, strong thighs, clean, well-made limbs, springy step, fine, crest, short back, muscular loins, broad forehead and well shaped head belong to the Hackneys. The temper is mild; they love man; they are easily broken; their gaits are the walk, the trot and the gallop; no pacers among them. At one time the Hackney was the favorite hunting horse of Englishmen, carrying with ease a 200-pound rider. But now it is the harness horse preferred to all others. It takes naturally to the collar and traces, bowing its neck and treading with a high and lordly step. It lifts its feet above all roughness and obstacles; it is no stumbler. Its motion of the fore legs is from the shoulder, of the hind legs, from the hip. Its action is the ideal of carriage horse action, rolling, showy and graceful. The thoroughbred and trotter trot from the fore arm down; they are, many of them, daisy cutters and stumblers.

The importation of English Hackneys began about 1888, and there are now about two thousand in the United States among more than fifteen millions of other breeds and mongrels—one in about eight thousand. But the reputation of the half-blood Hackneys as the best carriage and driving horses is already established. They bring higher prices than any other in the New York market. These are the horses it is profitable to breed and rear.

The Hackneys, like horses of other breeds, differ in size. Some fanciers have run to stout and muscular Hackneys of the pony build. Little giants, standing squarely, moving strongly, but not over 15 hands high, some of them less than 14 hands. They are good but not in demand. The salable horse is the one not less than 15½ hands high and not more than 16½ hands, and weighing from 1100 pounds to 1350 pounds. There are plenty of these good sized Hackneys to be had. Buy a pure-blood Hackney stallion, and pure-blood mares enough to keep you in the breed; then put to native trotting mares of good form, size and action, and you will soon have salable young horses on hand. There will be a good market for horses after 1897, if not before. There are fewer horses now by nearly a quarter of a million than last year. Next year the decrease will be a million. Then prices will go up. Don't imagine that electricity and bicycles have superseded or will supersede horses. Steam power has not done away with carriages, and airships will not end the use of steamships and railroads. The general depression in business in the last few years has lessened the use and price of horses, and when the business revives, horses will be in demand, and the best horses most in demand. For a hardy, spirited, gentle, stylish, quick roadster, commend me to the English Hackney. He neither forges, cuts nor straddles; nor does he need a whip. He is strong enough to pull a coupe, a brougham or a trap. Breed that kind of a horse and cease to grumble about the low price of horses in the market. A good horse makes a good price.

WILLIAM BIRNEY.

REMARKABLE LONGEVITY.

I READ last week in THE HORSEMAN of a remarkable case of fruitfulness in a mare thirty-three years old producing a vigorous and fine foal. Henry Cowgill, near Petersburg, O., has a mare, Betsey, thirty-eight years old, smooth, in good flesh, apparently sound, over 15 hands high, and weighs about 1150 pounds. Owner declares she can pull a buggy a mile in five minutes. Betsey's dam died at the age of thirty-three, but had produced fourteen living, vigorous colts, the oldest of them, the property of Mr. Cowgill, died last October, and this horse would have been thirty-eight in April next. Betsey also has foaled fourteen living, sound colts, the last at the age of twenty-five. They occasionally drive her to store or church. All her colts as far as are known are alive, and there is not a poor individual or a mean one among them. Betsey's sire was a Fearnaught, and her dam was sired by a horse called Sir Edward, whose sire was an English horse. I went to some trouble to see this remarkable mare. I examined her thoroughly. For an old horse she can eat remarkably well, has all her grinders, and they are in good shape. I never expected to see as smooth and limber an old horse as she is. I wish I could send you a photograph of her. You would be surprised. Mr. Cowgill is an easy, slow going small farmer, and believes in making haste slowly, but gets there just the same. There is no doubt that a well bred, sound horse's usefulness can be prolonged by proper care twenty-five years or more, and every horse, like every human that is good for anything or lives to any age, has antecedents that account for his qualities, be they good or bad.

"O blest retirement! friend to life's decline,
How blest is he who crowns, in shades like these,
A youth of labor with an age of ease!"

S. R. HOWARD, V. S.

The above is one of the few cases which are reported to turf papers by horsemen. There are doubtless a great many horses that live beyond the allotted score and a half of years that are never heard of. The article referred to by Dr. Howard stated that the producing mare was thirty-seven years old instead of thirty-three.—[Editor.

NANCY HANKS, 2:04.

ACKNOWLEDGING the fact that Nancy Hanks is, in a sense, public property, and that the public may be glad to read some of the facts connected with the history of this great mare, it gives me pleasure to furnish you with what I know about "Our Nancy," the most popular champion of the trotting family that has yet appeared.

Nancy Hanks was named by her breeder, Hart Boswell, Lexington, Ky., for the mother of America's greatest commoner, Abraham Lincoln, and was foaled in 1886, ten years ago, by Happy Medium, out of Nancy Lee, by Dictator, out of Sophie, by Edwin Forrest, out of Sophronia, by Parker's Brown Pilot, out of a mare by Bertrand, and she out of a daughter of Lance, son of American Eclipse. She is a rich brown in color, with left hind coronet white, and stands 15.1 hands high. She is smooth and handsome, with the clean bony head, fine ear and blood-like lines of her dam, who was an exceptionally handsome mare. Nancy's experience as a trotter commenced in the winter of 1888–'89, when she was broken to harness and jogged by a young trainer named Ben B. Kenney, then of Muir Station, Ky., and now in the employ of Marcus Daly. On July 30, 1889, as a three-year-old, she started in her first race at Harrodsburgh, Ky. Kenney dropped the first heat intentionally, that he might see whether he could "rate" or "place" the ambitious filly as he pleased. The following three were won with ease, and the chief distinction of Bonnie Wilmore, that won this first heat, was that he had beaten Nancy Hanks the only heat she ever lost. She started that season at Danville, Sharpsburg, Lexington, Eminence, Shelbyville and again at Lexington, retiring for the season with a record of 2:25¼, acquired in the third heat of her first race.

July 30, 1890, witnessed her first start as a four-year-old, still in charge of Kenney, and she trotted her first public mile better than 2:20 in this race over the Lexington track. She trotted six races this year, all in Kentucky, and three of them at Lexington. At the fair there she trotted a third heat in 2:14¼, and at the breeders' October meeting a third heat in 2:15½, and retired with the four-year-old race record.

Having shown championship class, many wished to drive Nancy Hanks in 1891, and Budd Doble secured her. None seemed over-anxious to meet the wonderful filly, and she was prepared for a campaign of specials. Commencing at Detroit, where she trotted against 2:14 and equaled it, she started at Buffalo, Rochester and Chicago, beating Margaret S. at the latter place and distancing her in the last heat, at the same time reducing her record to 2:12¼. From Chicago she went to Independence, Iowa, where she met and most decisively defeated Allerton, 2:09¼, then at the height of his fame, trotting the three best heats on record to that date, and reducing her record to 2:12. She next trotted specials at Milwaukee, Cambridge City, Richmond and Terre Haute, reducing her record at Cambridge City to 2:09¼, and at Richmond, Ind., to 2:09. From Terre Haute she went to Lexington, Ky., where a special race had been arranged between her and Allerton. For some time previous to this my attention had been directed toward the mare, and coming to the conclusion that she was destined to be the queen of her kind, and the fastest trotter yet foaled, I purchased her from Mr. Boswell on October 12, 1891. The purchase was made after it was decided not to let her race against Allerton, as she had not sufficiently recovered from a cold for Doble and Mr. Boswell to be willing to risk her health. The season of 1892 was confined exclusively to specials. Her engagements included starts at Detroit, Cleveland, Grand Rapids, Chicago, Independence, Hamline, St. Joe, Terre Haute, New Albany, Nashville and Sedalia. She reduced her record at Chicago from 2:09 to 2:07¼; at Independence to 2:05¼, and at Terre Haute to 2:04, thus lowering the champion trotting record held by Sunol in 1891, three separate times, and trotting eight public miles in better than the previous champion record of 2:08¼.

In 1893, her last season before the public, Nancy Hanks started but six times—at Boston, Springfield, New York, Indianapolis, Chicago and Terre Haute, and though she made some superbly game efforts to reduce her own record, and trotted six great miles in 2:08¼, 2:08, 2:06¾, 2:04¾, 2:06 and 2:06¼, the elements seemed to be against her. The great number of phenomenally fast miles she had gone had had their effect, and I thought it well not to ask too much of her, but give her a well-earned rest. Her last appearance in the sulky was during the Kentucky breeders' October meeting of 1893, in Lexington, her birthplace, and as she jogged slowly back past the stand, after brushing through the stretch at a 2:00 gait, the great and prolonged cheering, the waving of ladies' handkerchiefs and of men's hats, from the silk hat of the banker to the tattered head covering of the negro rubber, was a tribute of which any man might be proud, not to speak of a horse.

During her life on the turf Nancy Hanks started in sixty nine heats, of which she won sixty-eight; in thirteen races, winning all. She trotted thirty-nine heats better than 2:20, twenty-nine of them better than 2:15, sixteen of them better than 2:10, thirteen of them better than 2:08 and six of them better than 2:06. Her races as a three- and four-year-old were not walk-overs, as she had such pacemakers as Mattie H., 2:11¼; Gillette, 2:11¼; Dally Wilkes, 2:11½; Margaret S., 2:12½; Belle Hamlin, 2:12¾; New York Central, 2:13½, and others against her.

I consider her the greatest mare living to-day, for she has never been beaten, and never met a trotter that could force her out. She is now a sound, strong mare, as handsome as a matron as she was as a race mare, and is heavy in foal to Arion. It is improbable that she will ever be seen on the track again, and her fame will rest on what she has done and what her progeny, by the only trotter whose champion record has withstood the advantages given by the bicycle sulky, will do.

J. MALCOLM FORBES.