

are unfit to be used on a horse. It matters not what kind of bit we may be going to select, nor what kind of material it may be made, we should see that it has been perfectly fitted in all its parts. I have known persons who would choose bits because they were cheap. Cheap bits are made of poor material, consequently they are liable to break, and are not safe to use. When a bit is not properly finished, and rough places remain on it, it will chafe and sore the horse's mouth. When the joints in a bit are open, and not well fitted, the parts of the mouth that they may come in contact with are liable to be forced into them, and injured thereby.

Chain bits are sometimes used on horses, but they are unfit for use unless they are covered with some flexible material to prevent them from cutting the mouth. Rubber is the material most commonly used for covering this kind of bit, and, when it is properly applied, it makes a good covering.

The rubber-coated chain bit works well on many horses. Crane & Co., of Newark, N. J., manufacture the best bit of this kind I ever used. Their bits have a better finish than any bit I have ever seen of this kind. Owing to the flexibility of this kind of bit, it works well on horses that are liable to become injured on the angles of their jaws. In consequence of its flexibility, it adapts itself to the angles of the mouth, whereby it gets a greater bearing than most other kinds of bits, and, consequently, is not so likely to injure any one particular part of the horse's mouth.

The snaffle bit (fashioned after the various patterns now in use) is used, on trotting horses, more than any other kind of bit. The Mace and Dexter patterns are those now generally used, and, when horses are properly fitted with this kind of bit, there are few but will work well in them, unless they have previously acquired bad habits.

The bar bit, when properly formed, is a good bit, and I have found I could not get along without its use on some horses. The mouth pieces of many bar bits now manufactured are perfectly straight, and are of the same thickness throughout their entire length. Owing to this kind of formation, their bearing is limited, and they are likely to cause undue pressure on that part of the mouth they may come in contact with, which parts are usually the tongue and angles of the lower jaw, owing to their prominence.

My experience has taught me to prefer a bar bit whose mouth-piece is slightly curved, and one that is smaller in its centre than at its ends.

The curve should be gradual from end to end. This form of bit allows it to get a greater bearing on the different parts of the mouth that it is likely to come in contact with, and owing to this it is less liable to sore any one particular part of the mouth. Bar bits are sometimes formed with an arch in the centre of their mouth-pieces, and have been used on horses that had acquired the habit of carrying their tongues over the bit, to prevent this kind of habit. There is no doubt but the arch in the centre of the mouth-pieces relieves the tongue from pressure, and, at the same time, has a tendency to prevent the horse from carrying his tongue over the bit, and, were it possible to keep the bit in a fixed position in the horse's mouth, no doubt much good might be derived from the use of this kind of bit.

But if this is not the case, much harm is likely to result from the use of this kind of bit. We cannot form the arch without forming angles at its base, and when the bit is shifted in the horse's mouth; these angles are liable to injure the parts they may come in contact with. Consequently its good effects are liable to be overcome by the bad effects it may produce.

When the formation of the horse's mouth is such that the cheeks are liable to be forced in against the lower grinders, and thereby become injured when a bit is used on him, I find that the bar bit is the best kind of bit to use to prevent this kind of injury. It has less tendency to force the cheeks in than either a snaffle or flexible bit.

The bar bit is an easy kind of bit to cover, and is often covered to increase its size and make it more easy on the horse's mouth. Some use cloth of different kinds to cover bits with. Cloth of any kind is unfit to cover a bit; it will accumulate dirt, and become hard; besides, it sticks to the mouth, and by so doing it will cause soreness. Leather or salt-pork rind make the best coverings. The latter makes much the best covering, as it is less liable to adhere to the parts of the mouth it may come in contact with. Besides, it is thought that it contains some medicinal properties which add to its value as a bit covering.

When a bar bit is covered with leather, I have

the tongue over the bit is a very unsightly and annoying habit for a horse to have, and one that is very hard to overcome in some horses.

I have been able to overcome this habit in some horses by using a piece of rubber pipe, about three inches long and one inch in diameter; when two bits are used on a horse, both bits may be passed through the pipe, and when the overcheck is held up against the roof of the mouth by means of the check, or other straps, the horse is unable to get his tongue over the bits. When I want to use this kind of rigging on a horse that will not work on an overcheck, I suspend the upper bit by means of a strap attached to the crown-piece of the bridle.

The leather bit, whose mouth-piece is formed out of leather, works well on some horses, and may be used either on the overcheck or driving reins to good advantage on some horses.

Besides the above named kinds of bits, there are many other different kinds used, too numerous to mention. Most of them are unfit to use on a trotting horse at all, but some of them may answer a good purpose when used on horses that are not wanted for the track.

While there are no general rules that may be laid down to govern a horseman in selecting a bit to suit his horse, there are many circumstances that may be taken into consideration that will aid him much in making a proper selection of a bit. The natural disposition of the horse has much to do in causing him to be steady at any gait. If all the bits that ever were invented since Eve forged the first one, on which Adam was driven out of the garden of Eden, were used on some horses, they would not become steady trotters. The more I see of trotters, the more I am led to believe that the brain of the horse has much to do in making him a steady and reliable trotter. Besides the natural disposition of the horse, there are many other causes that may tend to make a trotting horse unsteady in his gait. One horse may be made unsteady from hitting his elbows, another from hitting his knees, and others from brushing themselves in one of the many places that a trotting horse is liable to brush when speeded.

A horse may become unsteady from soreness of his muscles, from soreness in his feet, or from soreness in any other part of his body or limbs, of which there are many parts that are liable to become sore, from different causes; he may be unsteady from not being able to properly balance himself at the trotting gait. And yet, besides all these causes, he may be caused to be unsteady by having an improper bit used on him.

When I have a trotting horse that is unsteady, I try to find out the cause of his unsteadiness, and, when possible, have it removed.

When I find I have a horse that is unsteady, from want of brains, I propose removing him from the trotting arena as quickly as possible, at any gait he may choose to go at.

When I have a horse that is unsteady, on account of brushing himself, I endeavor to remove the cause by means of boots, shoes, toe and side weights, properly applied.

When I find I have a horse that is unsteady, from soreness in his muscles, or any other of his parts, I give him rest, and apply proper remedies to relieve the soreness.

Many horses have their gait spoiled by being forced to trot when they are sore, and unfit to trot.

When I have a horse that is irregular in his gait, and unable to balance himself, I use toe and side weights to regulate his gait, and enable him to be better able to balance himself. Weights, when properly applied, assist many horses in regulating their gait, and do frequently enable us to get many horses to trot fast and steady, when all other means fail.

When I find I have a trotter that is unsteady, on account of the bit I am using on him, I proceed to examine his mouth, and when I find there is no soreness in it, I commence trying different kinds of bits on him, and continue to do so until I find one that will suit him.

When I find his mouth is sore, I endeavor to find out the cause of it. If I find the soreness is caused by sharp teeth, I proceed to dress his teeth, and afterward use on him the kind of bit that has the least tendency to force his cheeks against his teeth. When I find the angles of his jaws sore, I endeavor to use that bit on him that will have the least tendency to press on those parts. When I find his tongue, or the angles of his mouth sore, I cover his bit with salt pork rind, so as to lessen the friction on those parts, and apply some healing remedy to the parts affected. Something of an astringent nature usually has a good effect.

Dear Spirit, I have now given you my experience with bits, and as I do not claim to be a born horseman, I may be wrong in some of my con-

about bits may benefit some of your readers. I will now bid them good-by, but may, at some future time, tell them more about the weights, and what I have seen done with them.

Yours, S. T. B.

Aquatic.

SCHARFF REPLIES TO HANLAN.

Last week it looked as if there was a possibility that Scharff and Hanlan would come readily to terms for a match, but the New York Clipper of Saturday last contained the card given below from the Pittsburger. It will be seen Scharff promises to make a match in the Spring, but in this section that is only looked upon as an easy let down for the denizen of the smoky city, and a meeting between the two is considered very indefinite. It was hardly expected that Scharff would accept the Canadian's challenge, after the style the latter showed in his race with Ross; but as Scharff had some time before expressed a wish to get on with Hanlan the opportunity was offered him. It is understood the \$100 forfeit will remain in Frank Queen's hands until Spring, so as to give Scharff every chance to make his word good.

PITTSBURG, Dec. 28, 1877.

Sir: In reply to Mr. Hanlan's challenge, I promise to make a match with him next spring. I don't wish to make a match with him or any other person six or seven months before the race is to come off. Hoping this will satisfy Mr. Hanlan, I am, most respectfully,

Yours, etc., WILLIAM SCHARFF.

P. S.—Thanks to Mr. Hanlan for his photograph.

THE "TURF, FIELD AND FARM" ON AMERICAN OARSMEN.

It has been definitely settled that Trickett, the Australian oarsman, will meet Courtney on American waters next Summer. Before judging the probabilities of the race we should desire to see Trickett's form, and gather, from personal observation, an estimate of his powers. Meantime Hanlan, Scharff, and a few lesser lights are in the field. Hanlan has no chance either against Courtney or Riley, and now that the two latter have become professionals, we believe them "top of the heap." Riley is, as he has been for two seasons, a coming man. Whether or not he will ever be able to beat Courtney, remains for the future to determine; but if Courtney remains too much for Trickett, we think the latter will also yield to Riley, should the two ever come together. There is no oarsman whose skill, gameness and pluck have so favorably impressed us as James Riley. He only lacks the gigantic measurement of Courtney. Comparing their inches, we still think Riley the better man of the two, though on the merits of the past season we must yield Courtney first honors.

Fur, Fin and Feather.

FIVE THOUSAND BALLS.

CAPTAIN BOGARDUS' HARD WORK WITH A TWELVE-POUND GUN.

Captain A. H. Bogardus, divested of coat and vest, and wearing a broad sombrero, began at 2:40 p. m., on Jan. 3, in Gilmor's Garden, N. w. York, to break 5,000 glass balls in 500 consecutive minutes. In the first minute he shattered 18 balls, in the first five minutes, 81 balls; in the first half hour, 476 balls; and in the first hour 944 out of 960 balls shot at. He shot at 18 yards rise, the conditions being that every ball should be broken in mid air. His double-barrelled gun weighed twelve pounds. He used No. 8 shot. Mr. Miles Johnson was referee. He broke the first 100 balls in 6 minutes and 16 seconds, the second in 5:36, third in 6:37, fourth in 6:40, fifth in 6:25, sixth in 5:35, seventh in 7:35, eighth in 6:50, ninth in 6:15,

the tenth in 5:41. The Captain gained time on each th usard until 10 p. m. His right shoulder was then very badly swollen, his left arm was weak, his eyes were inflamed, his sight seemed to grow dim, and he missed many balls. He fired slower, too. He complained of nausea of the stomach and severe headache. Before the forty-seventh hundred was completed he was obliged to rest. He fired the rest of his shots while seated. He fired pretty steadily toward the closed, but he had to rest three times and take stimulants. The forty-ninth hundred was fired irregularly. His hand was swelling, and his right arm rapidly weakening, but his indomitable pluck never failed him, and he hit the balls right and left. When he began on the last hundred his most sanguine friends doubted his ability to succeed. But he rallied, and shot almost as rapidly and as well as at first; and when he shattered the last ball he was 19 minutes and 25 seconds ahead of time. Cheer upon cheer rang through the vast building when the result was announced. The Captain mounted a chair and offered a wager of \$10,000 against \$1,000 that there was no man living who could repeat the feat just accomplished.

Then with his friends he went immediately to his hotel, where he was cared for. His hand and arm had swollen so as to be entirely useless, and the right side of his face was nearly twice the size of the other. He was suffering considerably, and complained of pain in his head, and of a sickness at the stomach. He partook moderately of whisky and water, and in half an hour he was comparatively strong and hearty again.

SHOOTING AT GUELPH.

A pigeon shoot took place near the Silver Creek Brewery, Guelph, on New Year's Day, between sides captained by Messrs. Geo. Sleeman and J. Turnbull; Sleeman's side winning by five birds, as the following score will show:—

| | |
|------------------|--------------|
| Geo Sleeman..... | 1110011110-7 |
| C Root..... | 1000001011-4 |
| H Cull..... | 1011011010-6 |
| G Beck..... | 1011000010-4 |
| 21 | |
| J Turnbull..... | 1010001010-4 |
| T Holliday..... | 1100100110-5 |
| H Walker..... | 0100100111-5 |
| D Watson..... | 0011000000-2 |
| 16 | |

The same day a sweepstake shoot took place in the east end.

| | |
|------------------|--------------|
| Wm Hooper..... | 0111111111-9 |
| John Hooper..... | 1101011100-6 |
| Wm Dawes..... | 0101001111-6 |
| Geo Barber..... | 1110001101-6 |

SMLAL SHOT.

A Texas hunter shot a deer that had three well-developed horns.

They have regular rabbit hunts on Broad street, in Augusta, Ga.

A flock of water birds of the Shadrake species were seen at River St. Charles, Que., on the 3rd inst., and one of them was shot. Their presence there at this season seems heretofore unknown.

A pigeon match came off on New Year's Day on Mr. R Setten's farm, east of Cobourg, with the following results:—T. Munson 5 out of 6 birds, R. R. Pringle 2 out of 6. W. R. Waddell 3, and H. Crusoe 1.

A pigeon match took place at Princeton, Jan. 2, and was attended by a large crowd. Mr. C. Higginson won the first prize, having killed 16 out of 17 birds; the second prize fell to Mr. A. W. Gissing.

A pigeon shooting match took place at Strathroy, on Dec. 5, for the champion badge between Mr. John Paine and Mr. Alex. Johnson; ten birds each. Exceeding good shooting was done—Mr. Johnston killing his straight ten and Mr. Paine missed one and lost the badge.

London, the Royal Oaks of Bowmanville, and the Maple Leafs of Guelph. After some discussion, the games of the Maple Leafs and Royal Oak were thrown out, and the contest lay betw. on the Standards and Atlantics. The Standards claimed the championship on the ground of having fulfilled the terms of Rules 3 and 4 of the Amateur Association, to the effect:—1. That three games be played with every club entering for the championship. 2. That the Canadian Association of base ball players play under the same rules as the International Association. The decision, given in favor of the Atlantics, was based on Article XIII, Section 8, of the International Rules, viz: The club which shall have won the greatest number of games in the champion series shall be declared the champion club.

In regard to the professional championship of Canada, the Committee decided that the Maple Leafs of Guelph are the winners, they being the only club that entered for the championship. The following is the record of games played for the amateur championship:—

| CLUBS | Standards | Atlantics | Maple Leafs | Royal Oaks | GAMES WON |
|------------------------------------|-----------|-----------|-------------|------------|-----------|
| Standards (Hamilton)..... | 1 | 2 | 1 | 4 | |
| Atlantics (London)..... | 2 | 1 | 2 | 3 | |
| Maple Leafs (Amateur, Guelph)..... | 1 | 1 | 1 | 3 | |
| Royal Oaks (Bowmanville)..... | — | — | — | — | 3 |
| GAMES LOST..... | 1 | 2 | 4 | 4 | 14 |

THE DUKE OF HAMILTON'S AMERICAN PURCHASES.

The four colts and fillies purchased last year at Mr. H Sanford's sale of thoroughbred yearlings for account of the Duke of Hamilton, have been named as follows:—

- CATTARAUGUS, for b c, foaled 1875, by Glenelg, dam La Polka, by Lexington, out of Dance, by imp Gleneco.
- GIRTS JONAS, for ch c, foaled 1876, by imp Glenelg, dam Ulrica, by Lexington, out of imp Emilia (Australian's dam) by Emilia.
- LOCH TAINA, for b f, foaled 1876, by imp Glenelg, dam Stamps, by Lexington, out of Mildred, by imp Gleneco.
- SYLVIA, for b f, foaled 1876, by imp Glenelg, dam Miss Doyle, by Lexington, out of Emma Wright, by imp Margrave.

The above four are entered in all the principal two and three year old events.

MR. BONNER ADDS MAUD MACCY TO HIS STABLE.

The great young mare Maud Macey has been added to the stable of Mr. Robert Bonner. She is a chestnut without white, six years old, and stands 15.3. She was got by Joe Hooker (by Mambrino Chief), first dam by Star Denmark, second dam by Camden. She is six years old, and has a record as a five-year old of 2:27. In the latter part of September last she turned Mr. Macey's track at Versailles in 2:23. We have seen her in races, and saw her work in October. She is grandly gaited, and her high form is evidence that she can go the distance. Major McDowell says that R. Ward Macey never had a horse which could trot his track within several seconds of her. The track is a slow one. She has justly been regarded as the best mare ever bred in Kentucky. On a good track she could have beaten 2:20 in a fall. She wears a twelve ounce shoe forward and a six ounce shoe behind. She is without blemish and without fault. She bids fair to trot as fast as any horse in the world has trotted. The price paid was \$10,000. Mr. Marten, her owner, had never asked less than \$20,000 until the fact dawned upon his mind a few days ago that hard times had really come. She is a great acquisition to the stable in which Dexter, Mame, John Taylor, Posauchus and Grafton are shining lights.—*Lurt.*

THOROUGHBRED FOALS OF 1877.—The Messrs W.atherly have reported the following English stud statistics for 1877: Colts, 385; fillies, 876; total number of foals, 1,761; barren mares, 524; muzzed foals, 154; not covered the previous year, 80; mares covered by half-bred horses, 41; died before foaling, 120; sent abroad before foaling, 51. Total number of mares served, 2,781.