



BUY one of the old-fashioned to begin upon; these may be got at a reasonable price, as many have been discarded for the modern ones. They are called "practicers," or, more familiarly, "bone-shakers." In learning to ride, it is advisable to have a competent teacher, who cannot only show what is wanted, but can also put the beginner in the way of doing it himself; but as many may be unable, from distance or other causes, to avail themselves of this kind of assistance, the following instructions are intended for those who are thus thrown upon their own resources. Of course it is necessary to have recourse to a friendly arm, and there may be many cases in which *two* friends are desirous to learn the bicycle, and can give mutual help.

The old-fashioned bicycle is of this construction, that is, of moderate height and the most solid build, and altogether very different from its latest development, with its enormous driving-wheel and general lightness of make. These machines, with comparatively little difference in the height of the wheel, are best for beginners, as, being *low*, the getting on and off is easier and safer, and they are in every way adapted for the purpose; and it is only when tolerable command of this kind is acquired, that the modern large-wheeled bicycle may be adventured with fair prospect of success.

But even with these some discrimination is necessary. In choosing a machine on which to begin

practicing, we strongly advise the learner to select one of the size suitable to his height, as, if it is too small, his knees will knock against the handles, and if too large, his legs will not be long enough fairly to reach the throw of the crank. We know it is not uncommon to begin with a boy's machine, and on an inclined plan; but the benefit of these is very doubtful, unless you are totally without help, and have no one to lend you a helping hand.

The best guide in measuring oneself for a bicycle to learn on is, we consider, to stand by its side and see that the saddle is in a line with the hips. The point of the saddle should be about six inches from the upright which supports the handles; for if the saddle is placed too far back, you decrease your power over the driving-wheel, especially in ascending a hill.

When you have secured a good velocipede, well suited to your size, you will find it useful to practice wheeling it slowly along while holding the handles. While thus leading it about, of course you will soon perceive the fact that the first desideratum is to keep the machine perfectly upright, which is done by turning the handles to the right or left when there is any inclination to deviate from the perpendicular. If inclining to the right, turn the wheel *in the same direction*, and *vice versa*, as it is only the rapidly advancing motion that keeps it upright, on the principle of the boy's hoop, which, the faster it rolls, the better it keeps its perpendicular, and which, when losing its momentum, begins to oscillate, and finally must fall on one side or the other.

Now for the—

FIRST LESSON.

Having become accustomed to the motion of the machine, and well studied its mode of traveling, the next thing is to get

the assistant to hold it steady while you get astride, and then let him slowly wheel it along.

Do not attempt at first to put your feet on the treadles, but let them hang down, and simply sit quiet on the saddle, and take hold of the handles, while the assistant moves you slowly along, with one hand on your arm and the other on the end of the spring.

It is hardly necessary to say that the best place to learn is a large room or gallery, with smooth-boarded floor or flag-stone pavement.

Now, directly you are in motion you will feel quite helpless, and experience a sensation of being run away with, and it will seem as if the machine were trying to throw you off; but all you have to do is to keep the front wheel straight with the back wheel by means of the handles, and the assistant will keep you up and wheel you about for a quarter of an hour or so, taking rest at intervals. When you want to turn, move the handle so as to turn the front wheel in the direction required, but avoid turning too quickly, or you will fall off the reverse way.

Observe that in keeping your balance, all is done by the hands guiding the front wheel. Do not attempt to sway your body, and so preserve your balance, but sit upright, and if you feel yourself falling to the left, turn the wheel to the *left*; that is to say, guide the machine in the direction in which you are falling, and it will bring you up again; but this must be done the *same moment* you feel any inclination from the perpendicular. Do not be violent and turn the wheel too much, or you will overdo it, and cause it to fall the other way.

Practice guiding the machine in this way until you feel yourself able to be left to yourself for a short distance, and then let the assistant give you a push, and leaving his hold, let you run by yourself for a few yards before you incline to fall. Should you feel that you are losing your balance, stretch out the foot on the side on which you incline, so that you may pitch upon it, and thus arrest your fall.

SECOND LESSON.

Having pretty well mastered the balancing and keeping the machine straight, you may now take a further step, and venture to place your feet on the treadles, and you will now find the novel movement of the legs up and down liable to distract your attention from the steering or balancing; but after a few turns you will get familiarized with the motion, and find this difficulty disappear; and it will seem within the bounds of possibility that you may some time or other begin to travel without assistance.

Of course, in this and the former lesson, some will take to it more quickly than others, and the duration of the lessons must depend on the learner himself, and the amount of mechanical aptitude which he may be gifted with. Some we have known to take six times as much teaching as others.

THIRD LESSON.

Now, having in the first lesson ridden with the feet hanging down, and in the second with them on the treadles, in the

third lesson you should be able to go along for a short distance, working the treadles in the usual way.

Of course, when we speak of the *first* and *second* lessons, we do not mean that after practicing each of them *once* you will be able, of necessity, to ride at the *third* attempt; although we have taught some who seemed to take to it all at once; but that these are the progressive steps in learning to ride, and you must practice each of them until tolerably proficient.

When you are sufficiently familiar with the working of the treadles while held by the assistant, it depends entirely on yourself, and the amount of confidence you may possess, to determine the time at which he may let go his hold of you, and you may begin to go alone; but of course for some time it will be advisable for him to walk by your side, to catch you in case of falling. When you have arrived at this stage, you only require practice to make a good rider, and the amount of practice taken is generally a guide to the amount of skill gained.

To Get On and Off.—Having now learnt to ride the velocipede without assistance, we will now proceed to getting on and off in a respectable manner, in case you have *not* a step, which all modern machines are now provided with. The proper way is to vault on and off, which is the easiest way of all, *when you can do it*, but it certainly requires a little courage and skill.

At first, it may be, from want of confidence in yourself, you will jump *at* the machine and knock it over, both you and it coming down. But what is required to be done is, to stand on the *left*-hand side of the bicycle, and throw your *right* leg over the saddle. Stand close to the machine, holding the handles firmly; then run a few steps with it to get a sufficient momentum, and then, leaning your body well over the handles, and throwing as much of your weight as you can upon them, with a slight jump throw your right leg over the saddle.

This may sound formidable, but it is in reality no more than most equestrians do every time they mount, as the height of the bicycle to be cleared is little more than that of the horse's back when the foot is in the stirrup, only the horse is supposed to stand quiet, and therefore you can jump with a kind of swing.

You must be very careful that while running by the side you keep the machine perfectly upright, particularly at the moment of jumping. Perhaps at first you will vault on, forgetting to keep the machine quite perpendicular, and as an inevitable consequence you will come to the ground again, either on your own side, or, what is worse, you may go right over it, and fall with it on the top of you on the *other* side.

Of course it is much better to have an assistant with you at your first attempts at vaulting, and it is good practice to let him hold the machine steady while you vault on and off as many times as you can manage. You must not forget to put all the weight you can on the handles, and although at first this seems difficult, it is comparatively easy when the knack is acquired.

You will not attempt any vaulting until you can manage the machine pretty well when you are on, up to which time the assistant should help you on and set you straight.

To get on with the help of the *treadle* is a very neat and useful method, but requires considerably more practice than vaulting.

Stand with the left foot on the treadle, and taking a slight spring or "beat" from the ground with the right foot, give the machine a good send forward, of course following it yourself, and with a rise bring the right foot over to the saddle. The secret of this movement is that you put as little weight as you can on the treadle, merely following the movement, which has a tendency to lift you, and keep the greater part of your weight on the *handles*.

You may mount the bicycle in another way, and that is by running by its side, and watching the time when one of the treadles is at its lowest, then place your foot upon it, and as it comes up, the momentum thus gained will be sufficient to lift you quite over on to the saddle. In this movement also, as in most others, it is much better to have assistance at first.

To vault off, you have merely to reverse all the movements just described.

Another capital way of alighting from the machine while in motion is to throw the right leg over the handles. You hold the left handle firmly, and raise your right leg over and into the center of the handles, previously raising your right hand to allow the leg to pass under. Then lifting your *left* hand for the same purpose, you will be able to bring your leg over into a side-sitting posture, and drop on to the ground with the same movement.

But at this time pay strict attention to the *steering*, and take care never to let go one hand until you have a firm hold with the other, or you and the whole affair may come to extreme grief.

This we consider one of the easiest methods of getting off, although it looks so difficult.

To Ride Side-saddle.—Riding in a side-sitting position is very simple, but you must first learn the foregoing exercises. First vault on the usual way, and work up to a moderate speed, then throw the right leg over the handles as in the act of getting off, but still retain your seat, and continue working with the left leg only. Now from this position you may practice passing the right leg back again into its original position when sitting across the saddle in the usual way.

To Rest the Legs.—A very useful position is that of stretching out the legs in front when taking long journeys, as it rests the legs, and also, as sometimes you do not require to work the treadle descending an incline, the weight of the machine and yourself being sufficient to continue the desired momentum.

In this position the *break* is generally used; but when putting it on, mind you do not turn the handles with *both* hands at once, but turn with one first and then with the other; as, if the spring should be strong, and you attempt to use both hands in turning it, as a matter of course when you let go to take fresh hold the handles will fly *back*, to your great annoyance.

To Ride without using the Hands.—This is a very pretty and effective performance, but of course it is rather difficult, and requires much practice before attempting it, as

the *steering* must be done with the feet alone, the arms being generally folded.

To accomplish this feat, you must keep your feet firmly on the treadles in the upward as well as the downward movement, taking care not to take them off at all, as you will thereby keep entire command of them, which is absolutely necessary, as in fact they are doing *double* work, both propelling and also steering the machine. You will, as you become expert in this feat, acquire a kind of *clinging* hold of the treadles, which you will find very useful, indeed, in ascending a hill when you take to outdoor traveling. Fancy riding of this kind must only be attempted on good surfaces.

Description will not assist you much here, but when you attempt it you will soon find out that when riding without using the hands, every stroke of the foot, either right or left, must be of the same force, as, if you press heavier on one treadle than on the other, the machine will have a tendency to go in that direction; and thus you must be on the watch to counteract it by a little extra pressure on the other treadle, without giving enough to turn the machine in the reverse direction.

This is all a matter of nice judgment, but when you can do it a very good effect is produced, giving spectators the idea of your complete mastery of the bicycle.

But remember that you must be always ready to seize the handles, and resume command if any interruption to your progress presents itself.

To Ride without using Legs or Hands.—As you can now ride without using the hands, let us now proceed to try a performance which, at first sight, will perhaps seem almost impossible, but which is really not much more difficult than going without hands. This is to get the velocipede up to *full* speed, and then lift your feet off the treadles and place them on each side of the rest, and when your legs are up in this way, you will find that you can let go the handles and fold your arms, and thus actually ride without using either *legs* or *hands*.

In progressing thus, the simple fact is that you overcome gravity by motion, and the machine cannot fall until the momentum is lost.

This should only be attempted by an expert rider, who can get up a speed of twelve to fourteen miles per hour, and on a very good surface and with a good run; and, in fact, from this position you may lean back, and lie flat down, your body resting on and along the spring.

At Rest.—We are now come to the last and best, or, we may say, the most useful feat of all, and this is to stop the bicycle and sit quite still upon it.

The best way to commence practicing this is to run into a position where you can hold by a railing or a wall, or perhaps the assistant will stand with his shoulder ready for you to take hold of.

Now gradually slacken speed, and when coming nearly to a standstill, turn the front wheel until it makes an angle of 45 deg. with the back wheel, and try all you know to sit perfectly still and upright.

Of course this is a question of balancing, and you will soon find the knack of it. When the machine inclines to the left

slightly press the left treadle, and if it evinces a tendency to lean to the right, press the right treadle; and so on, until, sooner or later, you achieve a correct equilibrium, when you may take out your pocket-book and read or even write letters, &c., without difficulty.

Now, we do not think that there is anything further to be said as to learning to ride the bicycle, and we can only express a hope that if you follow the advice and instruction we have been able to give, you will become an expert rider and be able to begin practicing on the "Modern Bicycle."

Choice of a Machine.—And first, as to the choice of a machine. In this case it is imperative to have the very best you can get, as it is utter folly to risk life and limb by using one of inferior make.

In choosing a bicycle, of course the first thing to be considered is the height of wheel, which greatly depends on the length of limb of the rider; as, of course, although two men may be of equal height, one may have a longer leg than the other. A good guide is to sit on the machine and let the toe touch the lower treadle without quite straightening the leg, as of course command must never be lost. For a rider of average height, say 5 feet 8 inches, a machine of 52 to 54 inches we should consider suitable. But of course any well-known and reliable maker will furnish you with a machine to suit you.

Having selected your "Modern Bicycle," the first thing you want to accomplish is to be able to mount and dismount. Of course, the saddle being nearly as high as your shoulder, it is impossible to vault on, as with the old "practicer." It is therefore necessary to provide a "step," which, in all the modern machines, is fitted on the backbone, or connecting-iron, just above the hinder fork on the left side, at a convenient height. It consists of a small round plate, jagged, to afford a firm grip for the toe when placed upon it.

There are two ways of mounting. One is to start the machine and to run by the left side, and put the left toe upon the step while in motion, throwing the right leg over on to the seat; the other is to stand at the back of the machine, standing on the right leg, with the left toe on the step, and, gently starting, hop with the right leg until you have gained a sufficient impetus to raise yourself on the step, and throw your right leg across the seat.

The first is the best plan, as you can run with greater speed, and mount; in fact, the quicker you go, the easier to get on. In many cases it is the only practicable plan, as, for instance, on remounting on a slight ascent, where it would be most difficult to get up sufficient speed by the hopping plan, which, moreover, does not present a very graceful appearance.

Now, in the second way of getting on by the step, you hold the handle with the left hand to guide the machine, placing the other on the seat. You can now run it along easily. Your object in having one hand on the seat is, that if both hands are on the handles, you are over-reached, and it is difficult to keep your balance. Now take a few running steps, and when the right foot is on the ground give a hop with *that* foot, and at the same time place the left foot on the step, throwing your right leg over on to the seat. Now, the *hop* is the principal

thing to be done, as if, when running beside the bicycle at a good speed, you were merely to place the left foot on the step without giving a good hop with the other, the right leg would be left behind, and you would be merely what is called "doing the splits."

You will see at once that as the machine is traveling at good speed, you have no *time* to raise one foot after the other (as in walking up stairs), as when you lift up your foot, you are, as it were, "in the air," and nothing but a good long running hop will give time to adjust your toe on the step as it is moving. This is, of course, difficult to describe, and we need not say, requires a certain amount of strength and agility, without which no one can expect to become an expert rider.

But, in the high racing machines, no one would think of trying to mount without the assistance of a friendly arm, and a stand or stool of suitable height.

Having now mounted the high machine, you will find that the reach of the leg, and the position altogether, is very different from the seat on the "bone-shaker;" but when you get some command, you will find the easy gliding motion much pleasanter, as well as faster. You are now seated much higher, in fact, almost on the top of the wheel; and, instead of using the ball of the foot, you must use your toe; and when the treadle is at the bottom of the throw of the crank, your leg will be almost at its fullest extent, and nearly straight.

Now you must pay a little attention to the process of alighting.

In getting off by the step, all you have to do is to reach back your left foot until you feel the step, and, resting upon the handles, raise yourself up, and throw the right leg over the seat on to the ground.

But we consider getting off by the treadle much the preferable way when you can manage it; but you must be very careful when first trying not to attempt it until the machine is perfectly at rest. Get some one to hold you up, the bicycle being stationary, and practice getting off in the following manner: First, see that the left hand crank is at the bottom, and with your left foot on that treadle practice swinging your right leg backwards and forwards, in order to get used to the movement. Now while in position, throw your right leg with a swing backwards, resting as much as you can of your weight upon the handles, and raise yourself with your right foot into position, continuing your swinging movement until you are off the seat and on the ground.

When you are well able to get off in this way, with the bicycle at rest, you may attempt it when slackening speed to stop. As it is, of course, easier to get off the slower you are going, you must come almost to a standstill, just keeping way enough to prevent the machine falling over, as, if you attempt it when going at all quickly, you will have to run by its side after you are off, which is a difficult feat for any but a skillful rider.

The great advantage of getting off in this way is that, with practice, you can choose your own time, which is very useful when an obstacle suddenly presents itself, as in turning a corner; and in getting off the other way you are liable to lose time in feeling for the step.

There are different styles of riding, and of course at first

you are glad to be able to get along in any way you can ; but when you come to have any command over your machine, and and have time to think about *style*, you cannot do better than take for your model some graceful rider, whose upright and graceful seat gives an impression of quiet power. Very different is the appearance presented by some well-known riders, who, although going at really good speed, present a painful appearance, hanging forwards over the handles as if about to topple over, and favoring the beholders with such a variety of facial contortions.

Hints on Training.—It is very difficult to give any rules that will apply to all, as constitutions differ so widely ; but the simple rules of regular diet, rest, and exercise will apply to every one, whether they are going, as the saying is, “to race for a man’s life,” or merely trying to get themselves into

the best frame of body to endure moderate exertion. The daily use of the cold bath, or tepid if necessary, cannot be too strongly insisted upon ; and also early rising and going to rest ; and the avoidance of all rich viands, such as pork, veal, duck, salmon, pastry, etc., etc. Beef, mutton, fowls, soles, and fish of similar kind, should form the principal diet. The severity of the rules of professional training has been much relaxed of late years, and many things, such as vegetables, stimulants in great moderation, etc., are now allowed, which before were rigidly excluded.

In training for any special effort, of course it is necessary to have professional assistance ; but with moderate attention to diet and regimen, any one may soon get himself into good condition, and particularly if he becomes an habitual bicyclerider.

