## Tobogganing in the Engadine.

By CELIA LOVEJOY.

"AMERICA" TOBOGGAN.

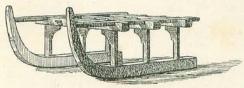


HEN the enthusiastic tobogganer from the Engadine speaks on his return England of his winter experiences as serious sport, his utterances are usually received

with smiles of tolerant incredulity. This is because those English who are not personally acquainted with Alpine tobogganing seem to imagine it to be something after the style of the play that has lately been seen on the cliffs of Dover and the hills of Hampstead.

This is a mistake.

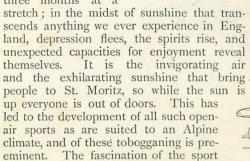
Two things go to make up the charm of



SWISS TOBOGGAN.

tobogganing in the Engadine: the sport itself, and the climatic conditions under which the sport is enjoyed. It is quite impossible to give in words any adequate idea of either; experience only can do this. At a height of 6,000ft. above the sea-level, in an atmosphere so pure that distances of miles seem little

more than yards, so dry that a temperature of 20deg. or 30deg. of frost seems quite comfortably cold; under a sky, of which the blue is unclouded for three months at a



rests in the rapid motion through the keen. bright, frosty air, and the dash of danger that attends it.

Tobogganing, as a sport, is in its youth. As a means of travelling down a steep incline, it may be close on two thousand years old; for did not Cæsar's legions slide down the Julier Pass upon their shields, steering with their spears? The first efforts to turn it into a sport were made in 1882 at Davos, by Mr. John Addington Symonds and others. Thirteen years have seen great developments, and the tobogganing of to-day does, indeed, call for the exercise of every quality that goes to make a true sportsman.

Before English-speaking people took to tobogganing, the Swiss handschlitten was the only machine known. This was a light, wooden skeleton with flat, iron runners, and was used by the natives to convey goods across the snow—they themselves occasionally mounting beside their goods to come down a slope. It was an American who, in 1887, invented the new type—a long, low, solid, heavy machine, with round spring runners of steel. The first one, named "America," was 4ft. 10in. long, 13in. wide, 41/2 in. high, and the runners were 5-8ths of an inch in diameter, with a spring of half an inch in the middle. For some time

> there was a prejudice against the new invention, but when it was discovered that races no other machine stood any chance against it, it was taken up and im-

mediately entirely superseded the Swiss, the use of which only survives amongst visitors, because Mr. John Addington Symonds founded an annual race to prevent its disappearance.

In the winter of 1888, Mr. W. H. Bulpett brought out an improvement on



SKELETON SPRING-RUNNER TOBOGGAN.

"America" in the form of the skeleton spring runner, but it was not until 1890 that this new toboggan was got to work satisfactorily. Now, no races are run on anything else. consists of steel skeleton runners, which support a breast-plank of wood. The runners do not shrink or warp as wooden ones do, and can be constructed with perfect accuracy, so the machine is quite reliable; the spring obviates jars, so greater speed at greater personal comfort is obtained. Some riders have their runners

grooved, in order that they may the better bite the ice and prevent the machine skidding The expert has a on awkward corners. different type of machine for each run, for a toboggan that will do rapid work on ice will

behave quite differently on snow.

The position of the rider has passed through various phases. First, everyone sat the toboggans as the Swiss do. Then the sideways, reclining attitude of the Canadians, with the left foot tucked underneath the right leg, which works backwards and forwards for steering purposes, was tried. To-day, amongst men, the head foremost position is universal. In this, the rider is flat on his face on his machine, the total length of which measures about from his chin to his knee. His body rests upon the



From a] THE VILLAGE RUN

board, which is covered with a thin cushion, his head and shoulders, as a rule, projecting beyond it. He grasps the top bar of the steel runner with his hands, and steers and brakes with his feet, which are shod at the toes with stout steel rakes. For delicate steering, the hand or even a turn of the head suffices; but at sharp turns it may be necessary to swing round the whole of the body, and the machine with it, and to use, as well, one or both feet. Some riders at critical points slip back from their machine in order to raise its head, leaping forward again immediately they have achieved what they desire. In the sitting position the heels are held close to either side of the head of the machine, ready to be dropped to the ground if needed to steer or brake. Iron-shod pegs are held in the

hands and used for the same purpose. The headforemost position is a long way the safest. There is more control over the movements of the machine, the hold on it is more secure, a fall from it is easier, and, above all, there is a much smaller surface of the body exposed to the resistance of the air, and so a greater pace is obtained. Other things being equal, which they are not, a lady sitting would have no chance in a race against a man lying.

At Davos, road-tobog-



From a

THE VILLAGE RUN-THE START,

[Photograph.



From a THE VILLAGE RUN—LORD WILLIAM MANNERS [Photograph. AND THE HON. HARRY GIBSON ON ROCKING-HORSE TOBOGGANS.

ganing is much practised, but there are no suitable roads at St. Moritz, so the pioneers of the sport began the construction of artificial ice-runs; now there is little or no riding upon anything else. The first riding of the season is on the Village Run, a public road, which leads down from the village on the hill-side to the lake at the bottom of the valley. It is about 700yds. in length, and has a drop of 150ft. Until three seasons ago, it was a snow run on an open road, so there was always a chance, though it rarely occurred, of meeting

an unsuspected horse and sleigh as you turned an awkward corner. Now the Kurverein has taken the run in hand. and it has banked corners and an iced surface, and horses and sleighs find the upper road more to their liking. It has a winding course with two good corners, and affords excellent practice for the more difficult run which is built later in the season. A corner

is a sharp turn which must be banked as a turn in a cycling track is banked, to enable the toboggan to get round it. Caspar's Corner is the most interesting point in this run. It is a very sharp turn, and calls for a good deal of skill and discretion on the part of the rider. The biggest failures and the biggest successes are scored here, and there is always a little crowd of expectant spectators.

Only one rider goes down at a time. People stand at the top of the run, and start in turn, allowing a short interval to elapse between each start. A rider's pace soon gets known, so a slow rider will start almost immediately after a quick one,

but a quick one will allow time for a slow one to get a good way ahead, before he begins his own course. In 1894 two enterprising young gentlemen, attired in pink, raced simultaneously down the Village Run on rocking-horse toboggans. But there were collisions at the corners, and one, and the same, rider fell in each heat. This is probably the only side-by-side race that has taken place on a St. Moritz run.

The interest of tobogganing in St. Moritz is centred on the Cresta Run, which is



From a

THE VILLAGE RUN-CASPAR'S CORNER.

(Photograph.

acknowledged to be the most interesting and difficult in the world. The length is threequarters of a mile, the drop is 500ft. It starts considerably above the level of the village, in a natural gully, which cuts the hill-side round which the main road winds between St. Moritz and the neighbouring village of Cresta, crosses the same main road, and ends some way down in the valley Standing on the time-keeper's below it. mound at the head of the run, one can see it twisting the whole of its serpentine course down the valley, such a bewildering combination of leaps, and corners, and straights as might well make the most courageous rider pause and consider. If the sun is on it, its sloping ice walls shine like silver, and one wonders how any machine in the world can hold on to them. If it is in the shade, its audacious sweeps, as forbidding as steel in the greyness of their hue and the hardness of their surface, are even more alarming. It is purposely made as difficult and as fast as possible, so that riding it may demand the sportsman's qualities: courage, nerve, resource, resolution, quickness of eye, coolness of judgment, and alertness of every sense. Riding on it never degenerates into a routine, for on no two days is its condition

years of devoted labour on the part of Mr. W. H. Bulpett has led to several important improvements, brought about by the removal of some awkward rocks, the slight alteration of the course of a stream, and the modification of the shapes of certain banks. The result, in the shape of the present run, is a masterpiece of engineering. The run is marked out with sticks before the snow comes. When enough snow has fallen, at least a foot, the work of making the run begins; operations start from the bottom upwards, and as soon as certain portions are completed, they are open for practice. A gang of native workmen, under the direction of the engineer, marches up and down the course, trampling a way through the freshly-fallen snow. Snow banks are thrown up and trampled into shape. And so a rough plan is obtained. Next, the corner banks round the turns are marked out, so that they appear correct as far as the eye can judge. As each bank has a relation to its successor, it is very necessary that the curves should be quite true; if they are, one bank will throw the toboggan on to the next, that on to the next, and so on. It not infrequently happens that an unskilful rider, who has come to grief, may, on picking himself up, have the



From a]

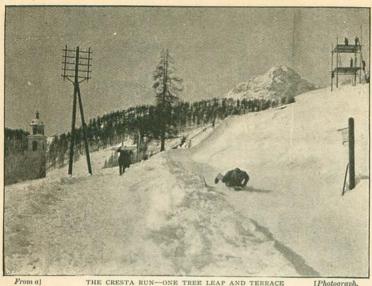
THE CRESTA RUN, ST. MORITZ-THE START.

[Photograph.

The surface varies with the the same. smallest change of temperature, and riding varies accordingly.

The Cresta Run of 1885 was a less daring conception than the run of 1895. The natural conformation of the land determined the course, but the experience gained by ten

mortification of watching his machine do the whole of the course in the most perfect style, and without a fault. This is owing to the scientific construction of the run. There is a theory for every corner, but as practice is ever superior to theory, each corner is tested experimentally. The engi-



[Photograph.

neer, on his toboggan, tries every portion again and again to see if the curves are right. When all inaccuracies have been rectified, the run is watered, beaten down flat, and left to freeze. A smooth surface of hardest ice is the result.

The Cresta starts, as has been said, at the head of the gully. Almost immediately comes the first sudden descent, One Tree Leap, the impetus thus given sending the machine down the level stretch of the Terrace to the famous Church Leap at such a pace that, unless precautions are taken, it shoots through the air at the bend of the slope and comes down with a most unpleasant jar. But this can be prevented if the brake is applied with sufficient strength. To a stranger this bit of the run looks truly terrible; but let it here be said that it is neither as dangerous nor as difficult as it appears. What difficulty there is does not lie in the leap itself, but in the sharp corner which immediately follows, and which is turned by means of three high banks, the first, on the right, measuring 22ft., the second, on the left, 18ft., and the third, on the right, 14ft. The great height of the banks is necessitated by the extreme abruptness of the turn. Until you are on intimate terms with the Cresta, your sensations on approaching Church Leap are very complex. There is too much of the excitement of anticipation and expectation for them to be denominated fear, yet your heart is very near your mouth. A very plucky young man, and a good rider, once confessed that he never went down without first offering up a little prayer. Vol. ix .-- 64.

Yet he was not afraid. But another, and he an athlete, frankly admitted that he would not do the Cresta for a thousand pounds down then and there. There are few who do not, after their first runs, dream at night that they are shooting up and down perpendicular walls of ice, which inclose a gloomy gulf. When your turn to start comes, you wonder in an impersonal kind of way whether you will arrive at the finish at all, and, if so, whether whole or in fragments. But once

off, you have no time to think. All your powers of mind and body must be concentrated on taking the first bank at the proper angle, because on that the whole course, practically, depends. If you take the first bank rightly, that is, in the manner that will



From al

THE CRESTA RUN-CHURCH LEAP. [Photograph.



THE CRESTA RUN-SECOND BANK AFTER CHURCH LEAP.

[Photograph.

enable a rider of your weight to get up the most pace, the other banks will do the work themselves, and you will come down on to the very gently curving straight that follows at a pace which will carry you up the slight rise and on to the critical corners, Battledore and Shuttlecock. These are two enormous sweeps with low banks, and are considered by some to be the most difficult portion of the run. They must be ridden with the utmost discretion and with complete certainty. If either

is taken at too great an angle, the rider simply shoots straight over the bank into several feet of snow. You do not often get hurt, but you find it a terrible business to haul up your machine from its soft bed. Stream Corner is an easier turn, on the same side as Battledore; after it comes a long piece of straight, down which the machine rushes at a terrific pace, and which, crossing the high road, where workmen are stationed to stop untimely sleighs, goes

on again to Bulpett's Corner, an awkward curve on the left. A slight turn on the right follows, then the descent of Cresta Leap, and a rush up into the snow to the finish. The pace at the end is a little, if any, short of eighty miles an hour, and riders, on rushing up the incline which succeeds the leap, have been known to shoot 4oft. through the

air into the soft snow at the top.

Throughout the whole of the course all the mental energies must be intent on the



THE CRESTA RUN-BATTLEDORE CORNER.

[Photograph



From a]

THE CRESTA RUN-STREAM CORNER.

[Photograph.

point of the run for which you are making. A glance right or left, an unnecessary movement of any part of the body, may change the course of your machine, slacken its speed, and so spoil your run. A nod to an acquaintance on the footpath has turned a toboggan awry, caused it to rush over the bank, and to

deposit its rider head first in the snow.

The run is usually closed before midday, because by that time the sun gets round to it, and the friction of the runners under the influence of the powerful rays of an Alpine sun cuts up the surface. A stout canvas screen has been built for the protection of Battledore Corner, which gets the most sun. If it answers, another may be put up at Bulpett's Corner.

The race of the year is the Grand National, a time race run in three heats. The moment the tobog-

gan touches the timing-line the watch is started. As the competitor passes the winning-post, the flagman stationed there drops his flag as a signal to the timekeeper at the top to stop the watch. This year's Grand National was run on Saturday, March 9th, and won by Mr. H. W. Topham, who did the



From a]

THE CRESTA RUN-CRESTA LEAP AND FINISH.

three heats in 3min. 37 2-5sec., the individual times being 1min. 12 4-5sec., 1min. 12 2-5sec., 1min. 12 1-5sec. Mr. Topham was the winner of the Grand National in 1892 and in 1894, and of the International Symonds Shield race at Davos in 1892. On the day of this year's race the run was in splendid condition and very fast, and the times beat anything that has yet been done either in this or in previous years. A new record was made by Mr. R. Bird and the Hon. Harry

Bobsleigh is a machine about 12ft. in length, fitted with two pairs of runners, the front pair fixed on a pivot so that it can be moved from side to side at the will of the steersman, who sits in front. The brakesman sits behind, and works, by means of levers, the brake—a board studded with iron nails. He also plays a bugle or horn, and plays it very badly. The whole crew, which more often than not is mixed, may consist of as few as four, or as many as ten. Bob-



From a

BOBSLEIGH TURNING A CORNER ON THE HIGH ROAD.

[Photograph.

Gibson, who were tied in the third heat, of 1min. 11 4-5sec. This gives a speed of over 37½ miles an hour over the whole course.

Any mention of tobogganing at St. Moritz would be very incomplete without a reference to Bobsleighing, a form of amusement adopted by the more frivolous riders. A sleighing is indulged in on the roads or down mountain passes. Such a machine could not be ridden on a winding ice-run. Even upon the road sometimes—

With wildest impetus
We rush into the frozen bank and stand upon our
heads—
And so an end.