

The Steam Carriage in the Heavy Winds of the Plains.

BY JAMES G. BLAINE.

You have requested me to give our experience with the steam automobile in the heavy winds which often sweep over this section of the country (Kansas), which I will endeavor to give in as direct a narrative as possible.

We purchased our machine in January, 1901. It was one of the early models, and, of course, was not in the advanced state that marks the auto of to-day. The first day we received the machine I fired it up and ran it around town for a while, and was very well satisfied with its behavior. However, the next day turned out to be very stormy, and as a heavy snow came that night it was several weeks before the machine was taken out again.

One disagreeable day in February the banker of our town telephoned to my father and wanted to know if he (my father) would take him down to a small town about 14 miles from Pratt. My father wished me to go, but I told him the day was too disagreeable to ride in an open rig. However, in the end he promised to take the banker and the start was set for 1 o'clock. I ate an early dinner, and about the time he was ready to start everything was in good shape about the machine.

In the meantime the wind had increased to a gale, but as it was blowing from the north and they were going southwest, they did not anticipate any serious trouble. But I knew better, for I had had the machine out one windy day before that, and it was almost impossible to keep up steam on account of constant back firing. But they made a gallant start, for the machine could be seen "popping off" for several blocks.

The burner and generator on the machine were of the early type, having only a casting for a vaporizer, with no protection from the mixing tube whatever, there being an open place where the wind could blow almost directly into the burner.

Well, after getting about 5 miles from town, a gust of wind extinguished the fire, and as the steam had run down below 50 pounds it was impossible to relight the fire without using the torch. So they got a friendly team to haul them up close to a barn out of the wind, and after running the steam up to 225 pounds a fresh start was made. Constant back firing made a stop necessary every few miles to allow the steam pressure to rise. After about two hours of very disagreeable riding they reached their destination, and as the banker had a considerable amount of work to attend to it was decided to remain all night with the hope of a more pleasant day for the return trip. So the machine was backed into a barn for the night.

The next morning found things in worse shape than the day before, for the wind was still blowing as hard as ever, and still

worse, sleet had begun to fall, all of which must be faced on the return trip. When they went to get the machine out of the barn they found all of the pipes frozen up solid, but as luck would have it none of them were split. After a continued use of the torch over these frozen members, the machine was prepared for the return trip.

The tank—which held 5 gallons of gasoline—was filled to the top, as it was well understood that the return trip was to be no pleasant one, facing the sleet and raw wind in an open rig, with the thermometer standing at 10° above zero.

After an early dinner the return trip was begun. The wind had been bad going down, when it was at their backs, but when it had to be faced the conditions were that much worse. The cold wind blowing on the vaporizing casting caused it to cool to such an extent that the gasoline was only about half vaporized, and it required, therefore, a much larger fire. Every few moments the fire would shoot down through the brass screen beneath the burner, and it looked very much like the machine would catch fire, although the draft drew the fire downward, thus saving the bed from being scorched. A stop about every mile and a half was necessary to keep the steam from going below 50 pounds. This, of course, took up considerable time.

I and one of our hired men were sitting in the office and wondering when the folks would return when my father drove up in a buggy. I asked where the machine was, and he said it was about half a mile from town, that they had run out of gasoline, and that I and one of the men had better take some gasoline and go and get it.

So I got a can of gasoline and took the rig which he had driven home in, and with one of the men went after the machine.

It was standing on the south side of the house, where he had managed to run it before the steam gave out, and after we had filled the gasoline tank the next thing was to get the fire started.

Anyone who has ever used the torch knows how difficult it is to operate one in the wind, and especially in a wind like that which was blowing that day. It was only after numerous attempts that the fire was started. However, it was finally accomplished, and the machine was soon at the store. After looking the machine over I found that the sand had blown into the engine—which had no shield—and had caused considerable wear in the eccentrics. This made the fact plain that not only a wind protection must be had, but one that would keep out the sand also.

The reader will think that to use 5 gallons of gasoline was a large quantity to use going only 14 miles. So it was, but as the burner was burning more raw gasoline than any other kind the fuel consumption was very large. Besides, with the strong wind it took more than three times the power required under ordinary circumstances. Anyone who has ever ridden a wheel will readily recognize this fact.

The next day I took the machine all apart and cleaned both the engine and the burner, also taking up all of the wear which the sand had caused in the engine. Then came the question of a wind protection. After considerable study we settled upon one which would not only protect the engine, but the burner and also the other machinery under the body.

We made, or had the tinner make, a long pan which would just fit in between the reaches and which was held up by small steel straps. The pan was about 4 feet long and 4 inches deep, with a solid bottom, which was kept from rattling by



FORDING A KANSAS STREAM.

lining the sides and bottom with thin boards nailed crosswise in the bottom, and by making a slot in the bottom for the chain to run through, we had a very good protection from the bottom. Next we took some buggy curtain material and cut two long curtains which opened on either side, which gave ready access to any part of the machinery by unbuttoning two buttons. Common buggy curtain buttons were used, driving the same into the pan and along the lower side of the body.

We left enough slack in the curtains, so the springing of the body would not pull the buttonholes out of the curtains. All of the machinery was hidden from view, and I really think it added to the appearance of the machine, because we always keep the curtain and pan painted black. This pan with curtain has been described by myself for several persons who wished to fit one to their machine, and anyone who wishes a complete description and measurements for the same may have it by writing to me.

Since we bought our machine and with my father's experience we have purchased a Kelly burner and generator, which we can operate from the seat—which could not be done with the old burner—and this burner fills its position well, as we have never had to stop a moment for lack of steam on the road since putting on this burner. We have operated our machine over a year and we have never paid out a cent in the way of repairs outside of the new burner, which our factory—which makes the machine—furnished us at cost.

People in the Eastern States are not troubled as much with the wind as the people who live on the plains, but this article may be of benefit to some. It will at least show what the new vehicle must withstand occasionally on the plains. Our machine was the first automobile put to actual use in this part of the country; therefore we have had the advantage of over a year's experience with actual service of the steam vehicle. Running a machine on the city streets and running one "up hill and down dale" are altogether two different matters. But I am satisfied that the horseless vehicle has come to stay, whether it is open to criticism or not.

The driver of the machine shown in the picture is the writer, James G., who runs the machine most of the time in these trips to the country. The picture also shows the patent wind protector which was put on the machine to protect the fire from the furious winds which often sweep across the plains.