The Sound of a Horn

By Hollis Godfrey

The lawyer was waiting on the court-house steps as Ben hurried up.

"Sorry to take you out of school for this violation of the speed law, Ben," said Mr. Meyner. "Or perhaps you're not sorry?" he added, laughing.

"Oh, I don't mind," Ben answered. "All my recitations are over for the day. I should have hated to have to leave earlier, tho. I didn't want to lose to-day's work in physics. We've been doing some bully experiments out in the square, with stop-watches, on the velocity of sound. But never mind that now. How's the case?"

"Nothing new," said the lawyer. "Honestly, Ben, weren't you speeding?"

"Honestly, Mr. Meyner, I wasn't," the boy replied. "I wouldn't be such a fool as to speed with mother in the car. The town sign up there on that very road says thirty miles an hour, and I wasn't going over twenty-nine, at the outside, when they caught me."

"All right, Ben, that's enough," said the lawyer. "I believe you, but I'm anything but sure that the court will. Both of the constables will swear you were over the speed limit, and I think they mean to tell the truth as near as they can see it. The rub is that the town wants money, and they'll prosecute you if you go a quarter of a mile over the limit. In fact, I've appeared against this same pair four times myself, and lost every time. I don't believe there's much chance of your getting off." He stopped short and looked down the street. "There they come now," he remarked.

Two long, lank men, one old and one young, each wearing a large nickeled badge on the outside of his coat, were approaching the court-house. The elder one, with the exaggerated actions of a would-be wit, stopped at the foot of the steps and waved portentously to his companion.

"Here's where the town gets some more automobile money—eh, Lije?"

"Sure thing!" returned the younger man. "The fine we'll get outer that young feller 'll come in handy!"

As the two men passed, Ben looked at them indignantly, and started to speak. Then he clenched his teeth, turned resolutely up the steps, and entered the court-room.

Mr. Meyner had timed things carefully. Their case came on just as Ben entered. Briefly the boy pleaded not guilty. Then the first constable took the stand and began to give his evidence.

"It's the same old case," said the constable, leaning forward confidentially. "This young man here, he came thru whizzing. When he passed my line, I pumped my horn; when he got to Lije's line, he pumped his horn, and we both took the time and held him up. He was going about thirty-two miles an hour. We figgered the proposition in his case, just as we always do, on an eighth of a mile measured off by a surveyor. This chap's guilty because he ran the eighth of a mile in fourteen seconds by our stop-watches," continued the man with the badge. "You see, if you travel thirty miles an hour, you go half a mile a minute, a quarter of a mile in half a minute, or an eighth of a mile in fifteen seconds. If the machine takes fifteen seconds to go the eighth of a mile, she's going just the limit. If she takes more than fifteen seconds to do it, we let her go by, for that means she's going less than thirty miles and that she's under the limit. If she takes less than fifteen seconds, we hold her driver up."

The lawyer turned to Ben as the constable finished his testimony.

"You see," he said in an undertone, "he really does know what he's talking about. I don't believe it's any use to fight this."

Just as he spoke, Ben, who had suddenly commenced to figure hard on a piece of paper which he had drawn from his pocket, leaped to his feet. Without answering, he hurried across the room to one of his friends.

"Tom," he whispered eagerly, "will you run over to the library as fast as you can go, and ask Miss Conners if I can have the volume of the 'Century Dictionary' marked 'S—T' for half an hour? Tell her I've got to have it to win my case. She'll give it to you."

Open-mouth with amazement as he was, Tom hurried from the court-room, while Ben returned to the side of the wondering and somewhat indignant lawyer.

"Forgive me for leaving you, Mr. Meyner," he said earnestly. "But we've got 'em, got 'em chilled. The old chap's testimony proves it. I got our case out of my physics lesson to-day out in the square. Part of it comes from the variation of our stop-watches—they're using the same kind—and part from our experiment on the velocity of sound."

"Why? What?" began the lawyer.

"Listen," said Ben, and he began to whisper eagerly, explaining his statements by constant reference to the figures he had just made.

The second constable had meanwhile taken the stand, and was offering corroborative testimony, which gave Ben ample time to lay his case before Mr. Meyner. Before the younger constable had finished, Tom came back with a big volume. Ben seized the book, ran rapidly thru the leaves, found a place, and showed it to the lawyer, whose face, already wreathed in smiles, grew more and more jubilant as he read.

Mr. Meyner was on his feet the moment the second constable sat down.

"Your honor," he exclaimed, "if you have no objection, I wish to cede my place to my client, Mr. Benjamin Davison, who I believe, understands more about this case than I do myself."

At this unexpected announcement, the craning of necks in Ben's direction became greater than before. Even the constables were unable to escape the general contagion. Ben rose in the centre of an intent throng.

"Your honor," he said, "I propose to show by the aid of a witness who is present that I was within the legal speed limit, and that I was running less than thirty miles an hour."

As Ben spoke, the elder constable began to gaze around the court-room with a look of amazement, which changed to a hostile glare as he found himself suddenly recalled to the stand by the defence. The glare relaxed a little as the first apparently harmless question came from the boy's lips.

"You spoke of your pumping your horn, and of your companion pumping his," asked Ben quietly. "Will you please explain a little more fully just what you meant by that?"

"I sure will," answered the constable with assurance. "We wanted a signal that wouldn't be seen, and that wouldn't seem unnatural to people when 'twas heard, so we got two automobile horns. When anybody went over my line—I was back in the woods—I'd pump my horn; and when they reached Lije's line, he'd pump his. Then we both took the time on our stop-watches."

"I see," said Ben. "Now for the watches. You both have with you the watches that you used the other day?"

Both constables nodded affirmatively.

"Will you be good enough to start them when I say 'Start,' and stop them when I say 'Stop'?" inquired Ben.

At this the elder man became restive.

"I won't unless the judge orders it," he cried.

The judge was evidently becoming interested in Ben's line of questioning. He leaned forward.

"I'll give the word to start and stop myself," he said. "And if you two constables will step up here, I'll examine the watches before and after each test."

Once the judge made the trial. Twice he made it. Thrice he did it. Then he looked up.

"The records vary, on an average, eight-tenths of a second," he remarked.

"Please note, your honor," said Ben quietly, "that eight-tenths added to fourteen seconds makes fourteen seconds and eight-tenths, nearly up to the legal limit of time for the eighth of a mile."

The judge nodded.

"Did it ever occur to you," the boy went on, as he turned toward the witness, "that there might be an interval of space between the time you sounded the horn and the time your partner heard it?"

"No, it never did occur to me, and what's more, it never did to anybody else!" answered the constable sarcastically.

Ben's eyes gleamed as the constable left the stand at the close of the examination. Without delay the boy began his argument.

"Your honor," he said earnestly, as he picked up the big volume beside him, "by the aid of two things—the velocity of sound over the distance measured off in this special case and the variation in the watches of the constables—I expect to prove to you that I was not going over thirty miles an hour, but that I was going definitely less.

"First, let me quote from the 'Century Dictionary' as follows:

"'The velocity of sound is about one thousand and ninety feet per second at thirty-two degrees Fahrenheit, and increases slightly as the temperature rises.'

"Second, please note that since there are five thousand two hundred and eighty feet in a mile, there must be six hundred and sixty feet in an eighth, the distance over which my speed was measured. It takes sound a second to go one thousand and ninety feet at freezing temperature. Therefore it takes sound a little more than six-tenths of a second to go an eighth of a mile.

"Third, in this case it must have taken at least six-tenths of a second for the sound of the horn to go the eighth of a mile from one constable to the other on the day they arrested me, because the temperature on that day was slightly below freezing. It must have taken six-tenths of a second more for the sound of the horn to go back. But we'll waive that second six-tenths of a second, for the reason that we don't need it to prove our case.

"I have already shown that the variation of eight-tenths of a second in the constables' watches would make a time record of fourteen and eight-tenths instead of fourteen. Add six-tenths of a second more for the time taken for the sound of the horn to go from one constable to the other, and you have fifteen seconds and four-tenths. My time for the eighth of a mile, therefore, was fifteen seconds and four-tenths. The legal limit is thirty miles an hour, an eighth of a mile in fifteen seconds. I believe I have proved my case. My car was going under the limit."

As Ben ended, the court was in an uproar. It was only with the greatest difficulty that it could be stilled, but silence reigned at last, and the prosecuting constable had an opportunity to speak.

"As far as the difference in our watches goes, I don't think anything of that. A second's nothing," he remarked. "And as for the rest, all I got to say is that I never heard anything so foolish as to say sound don't travel instantaneous. Why, I've heard it instantaneous all my life. So long as the dictionary says it don't, why, I s'pose there's nothing I can do. But I don't see daylight thru this thing yet."

Over his spectacles the judge threw a glance at the two perplexed and disconsolate constables. Then he looked at the boy defendant, and a slight smile hovered around his mouth.

"Case dismissed!" he said.

GRAIN ON THE GROUND

The photographs shown herewith give some idea of the manner in which farmers in many parts of the West were forced to handle their grain last fall, owing to the enormous crop and lack of adequate storage facilities. Concerning the top pile A. J. Harding, Creekfield, Sask., writes: "Herewith is a picture of a pile of wheat threshed on our homestead on October 14, 1915. There is over 1,100 bushels of wheat in this pile. We were unable to get cars, so this wheat lay in the open for over two months, and now it is in a granary. I signed for a car at Laura, C.N.R., on Oct. 14, 1915, but I am still 40 behind."

The other pile contains about 1,700 bushels and belonged to Dr. F. B. Elder, Fiske, Sask. The photograph was taken in October, 1915. We shall be glad to receive and pay for good photos of similar scenes and expect, in addition, to get a large number of letters from our readers in reply to the competition on "Actual Grain Conditions," outlined in last week's Guide on page 5.

M.A.C. PLATOON

Manitoba Agricultural College is raising a platoon of the 196th (University) Battalion, and an appeal is made for recruits. Students, past and present, are joining, and have the privilege of bringing with them friends who have not been connected with the college. Lieut. R. A. Cunningham has been selected to command the platoon, and will supply information to all enquirers. Headquarters are at the college.