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The superiority of the MORROW coaster brake is the natural result of proved correctness of its design. Its longer life, positive action, and un-failing dependability result from the logical application of known and tested mechanical principles.

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The MORROW has a *straight hub*. The brake drum expands against practically the entire inner surface of the hub bringing into play 6 3-10 square inches of braking surface—larger than that of any other coaster brake. The brake shoes on the drum are of bronze and they press against steel—thus utilizing the difference in hardness of the two metals to increase the braking power.

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How to Make a Jazzolin from a Broomstick

THIS instrument is a source of great amusement to the music lover and is one that can be easily played by anyone as it embodies only one string.

Frets or marks may be made at the proper intervals on the fingerboard to guide the novice in placing his fingers. They may be copied from those on a



Here is the way the jazzolin will appear when finished. Anyone can play it with but little practice

guitar or mandolin or made by finding the scale on the instrument itself.

The body consists of a small-sized cigar box, the front cover cut as shown in the illustration, measuring 1 3/4 in. from each corner and 2 1/2 in. down on the sides.

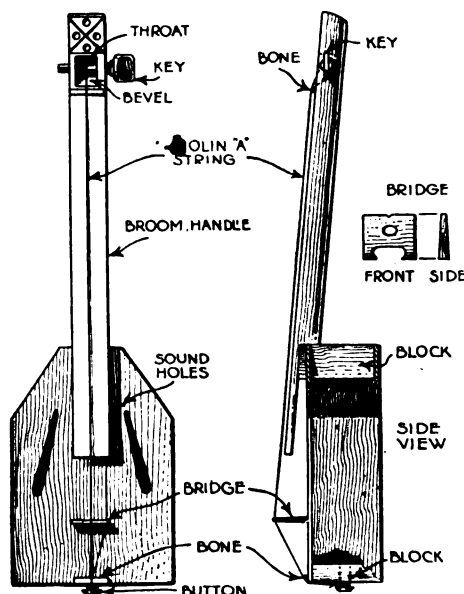
The sound holes are shaped like the warrior club, or the conventional F hole may be substituted, the length being 3 in., the width 3/16 in. on one end and widening to 3/8 in. on the other. Set them in or on an angle as shown, 1 1/2 in. in on front and 1/2 in. on the back. The side view gives the position of the inside blocks—front and back—that in front being 1 1/4 by 1 1/4 by 2 1/4 in. while the back one is 1/2 by 1/2 by 1 3/4 in. The height will vary according to the depth of the box.

Bevel the top of the front block 1/8 of an in. to form the slant for the fingerboard. Bore holes in the back of the block for the button peg. Clamp the broom handle in a vise and plane off the top until the width is a trifle over 1/2 in. Now measure in 4 in. on one end, and down 1/4 in. from the top of the end. Saw on this line to the 4 in. mark, cutting out with a fret saw. The length of the whole will be 15 in. Now measure in 1 3/4 in. from the other end and drill holes 3/4 in. the depth of the handle, 7/16 in. wide and 1 1/4 in. long. A small strip of bone is fastened upon this end as well as one on the back of the box. These should have small grooves filed in the center of the top for the string. The key is made from hardwood and must taper like a violin key. The design may be varied to suit the ideas of the builder.

The design on the end is made with a three-cornered file and a small drill. The bridge is 1 in. in height and 1 1/4 in. wide. Cut in 1/4 in. on the bottom to form the feet. Taper the thickness of the height from 3/16 in. to 1/8 in.

Make a small peg and insert it in the rear block. Glue strips on the top inside edges and after fastening the fingerboard through the front block set in the top and glue it securely. Now bore a hole through the top of the fingerboard into the block, and countersink the screw which holds it. If desired the bridge may be rounded slightly on top while the two pegs are made for the front and back. This will allow the use of two strings tuned in fifths or five tones between their pitches, preferably E and A violin strings. Use only silk or gut strings as a steel string will sound much too tinny. Cut the grooves for the strings about 3/8 in. deep—if more than one is to be used. This will allow plenty of drop for the bow.

Purchase a cheap bow from some music store or pawn shop but be sure



The diagram above sets forth in detail every part of the construction and you should encounter no difficulty in making the instrument

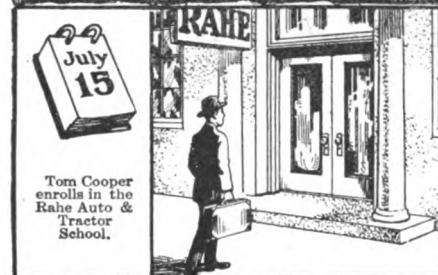
that the hair is in good condition, and it should be kept well rosined. Decorate the edges and corners of the instrument with narrow strips of colored paper and give it two coats of white shellac, rubbing down the fingerboard after each coat.

For a more finished instrument a hole can be bored in the back block under the peg, and in it a round stick about 25 in. in length may be inserted to give a substantial rest for the instrument. When finished this way it resembles the 'cello.

The jazzolin somewhat resembles the ukelele except for the fact that it is played with a violin bow instead of a pick. Several of these instruments in conjunction with a piano will render very pleasing music. The popular "jazz" music becomes easy, once one is accustomed to using the bow.—FRANK W. VROOM.

How Rahe

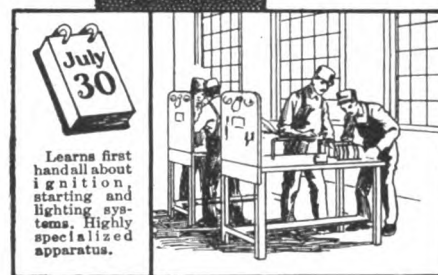
Trained Tom Cooper to Be A Big Success in Only 7 Weeks



Tom Cooper enrolls in the Rahe Auto & Tractor School.



Works with his own hands in the best equipped shops ever used for training purposes.



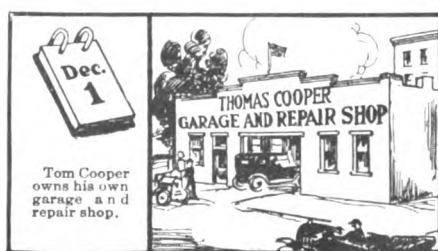
Learns first hand about ignition, starting and lighting systems. Highly specialized apparatus.



Studies automobiles in all their parts under Master Mechanic Instructors.



His Rahe diploma gets him a \$150-a-month job the day he graduates.



Tom Cooper owns his own garage and repair shop.

How Tom Cooper Won Out

CHAPTER 1.

TOM COOPER lived in a small town. He had tried several jobs, but none of them suited him. One day he read about the great Rahe Auto & Tractor School in Kansas City where any man from 16 years up, could learn the Auto and Tractor Business in 6 to 8 weeks. Over 30,000 men, thousands of them of Tom's own age and station in life were Rahe trained men, and numbered among the biggest and most successful men in the Automotive Industry. They were making good, they had found success. Tom began to think. "If I stay here, what will I be earning 5 years from now?" he asked himself. "And how much money will I be getting if I go to the Rahe School and become an expert on autos, tractors and aviation?" He took a train for Kansas City.

CHAPTER 2.

The very day he arrived Tom Cooper enrolled as a student in the Rahe Auto and Tractor School. He found he had no dull books to wade through. He set to work at once in modern machine shops that were to be his school rooms. His instructors were wide-awake, Master Mechanics. Every possible kind of tool and machine was there for him to use with his own hands and men who knew all about them explained everything to him. At the close of his first day he had learned what made motors run and why some wouldn't run. For the first time in many days Tom was pleased with his work.

CHAPTER 3.

Inside of a month Tom found he knew most of what there was to know about motors. He found every kind of equipment there was to know about. And he found that it was easy to learn. It was one of the few things he had ever done that he liked. Each day his training took in new work until the facts about autos, tractors and aviation were learned, through actual practice. As Tom put it, he was sure "headed right."

CHAPTER 4.

The more Tom Cooper learned about the automotive business, the more his interest in the work grew. The time went by so pleasantly that almost before he knew it he was in his last week, learning how to manage a garage and by that time had decided that some day he would have a business of his own.

CHAPTER 5.

Before the end of the second month Tom graduated. He was now a Rahe trained man. "Here's a job for you at \$150 a month to start," said Mr. Rahe, as he handed Tom his diploma. Tom went to see the garage mentioned. "Yes," said the owner, "Mr. Rahe just called up about you. His O. K. is enough for me—the job is yours."

CHAPTER 6.

Cooper worked at this job four months when the big chance he was looking for came. Best of all it was in his own part of the country. He went into the garage business for himself. Today Tom supports his wife and mother and has a mighty nice bank account. As he says himself, "I am my own boss and doing well. Rahe trained me to be successful from the start."

Here is a coupon that will open to you the same door of opportunity into which Tom Cooper walked to success. A special low tuition rate for Full Life Scholarship now if you fill out and send it at once to

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