

INVENTION

Alloys for Low Cost Cutting Tool Steel Are Patented

➤ **ALLOY STEELS**, of relatively low cost and suitable for use in cutting tools, have a high degree of resistance against softening when subjected to temperatures in the range above 1100 degrees Fahrenheit. They are claimed to have better resistance to temperatures above 1100 degrees than other steels now available.

This steel alloy contains less than 3% chromium, 3% tungsten, 2% vanadium, 4% molybdenum and 1.2% carbon. Amounts vary less than 1% from the figures given.

Inventor is Peter Payson of New York. Patent 2,565,264 was awarded to him. Rights are assigned to Crucible Steel Company of America, also of New York.

Science News Letter, October 27, 1951

How to Make a Living in the Country

You can enjoy that country home to-morrow, if you know how to make it pay for itself, and give you a comfortable living besides.

Fred Tyler's amazing Passport to Independence is now ready for you . . . a heart-warming book ready to help you walk out of your job . . . free as a bird. It proves once and for all that you can be your own boss . . . live in the country and make it pay with or without farming. It's a wonderful book . . . a store-house of information which tells you where to go . . . what you need . . . how to get started. Here are the names and locations of the richest, most beautiful boom areas in America . . . where land is cheap and where living is easy . . . where you can pick your neighbors and be your own boss . . . Quiet, friendly, prosperous country towns from coast to coast waiting to welcome new neighbors, new business men and women to serve them. Do you want a clean life with your own home and your own land?

Fred Tyler proves that you can actually move into a country home for less than you pay for a year's rent . . . and make that home pay for itself. He shows how you can make good money from a motel . . . how to turn your front lawn into a profit-making roadstand . . . your hobby into a business . . . He proves again and again that whether you farm, open a shop, an office, or sell a service . . . you can make a mighty comfortable living and live the life you always dreamed of for you, your wife, and your children. Have you ever seen the difference between a country child and a city child? Friends, in his book, Fred says, the boom country areas are just waiting for you. If you have a little cash . . . he tells you traps to watch out for when buying a business . . . the deals to snap up if you can get them. If you're short on cash . . . read every word of his shrewd, wise advice on how to start a business on a shoestring.

Now, honestly, don't you want to say goodbye, so long, good riddance to the life you're living now? Then, send for Fred Tyler's Plan for Independence today. It's yours for . . . now get this . . . only a single dollar bill. Your Passport to Independence for only a \$1.15 fact-filled chapters for only a dollar. It's a limited first edition . . . Order yours before they're all gone. Rush your name and address and one dollar to

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Dayflower

➤ **LATE OCTOBER** though it is, you can find the dayflower in bloom in a thousand places in the moist woods, and if the winter turns out to be a mild one you will find it still in bloom after several snows have fallen. This lowly, creeping, unobtrusive plant with the curious two-petaled blue or purple flowers is one of the hardiest blossoms we have.

If you will pluck one of the little flowers and examine it more closely, you will find

that it is not really two-petaled, but has the orthodox three of the lily tribe and the rest of the great branch of the flowering world known to botanists as the monocotyledonae. The third petal is so much smaller than the other two that it is often overlooked at first glance.

More specifically, the plant belongs to the same group as the familiar spiderwort and the even more familiar Tradescantia or Wandering Jew widely cultivated in window boxes. Its creeping habit and the shape of its leaves and jointed stems remind one at once of the latter species. It also has the same trick of striking root at the joints or nodes, which makes for its success in taking care of itself in the woods.

There is also a suggestion in the arrangement of the flowers that connects this flower with the spiderwort. It will be remembered how the upper leaves of the tall spiderwort stem bunch themselves protectively around the flowers, forming a sort of rosette or clump. This function is performed in the dayflower by a single upper leaf, which folds inward to form a sort of hood.

The plant receives its English name from the brevity of the lives of its blossoms, which are even more evanescent than the tender flowers of the spiderwort. They do not even live as long as the name indicates, for they unfold in the morning and by afternoon are already past their time and turned inward, withering on their stems.

Science News Letter, October 27, 1951

DENTISTRY

Find More Tooth Nerves

➤ **WHY THE** dentist's drill, or burr, hurts before it has cut very far into the tooth is explained by research reported at the meeting of the American Dental Association in Washington.

Tiny nerve fibers extend much farther out toward the enamel surface of the tooth than most dental authorities previously believed, Dr. Ira R. Telford and Miss Margaret Powers of the University of Texas School of Dentistry find.

Formerly when dentists looked at a cross section of a tooth under the microscope, they thought the nerve fibers from the pulp

inside the tooth stopped at a layer of dentin-forming cells called odontoblasts. Thread-like structures seen running beyond into the dentin itself were thought to be processes coming from the dentin-forming cells.

Very fine, almost sub-microscopic nerve fibers also run into the dentin and loop around the tubules of dentin, Dr. Telford and Miss Powers find. They were able to identify these by a special silver staining technique which Miss Powers adapted to teeth from brain and spinal cord nerve staining methods.

Science News Letter, October 27, 1951

GEM SPECIMEN COLLECTION

Nine fine rough specimens of Crystal Gems in Snowfoam Plastic Mount 3 x 5 x 1/2" containing Aquamarine, Golden Beryl, Pink Tourmaline, Green Tourmaline, Green Beryl, Kyanite, Peridot, Citrine and Amethyst. Price \$2.50 prepaid. Booklet, Introduction to Geology for the Layman 50¢.

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