

UNITED STATES PATENT OFFICE

PHILIP NORTON ROSEBY, OF LIVERPOOL, ENGLAND, ASSIGNOR TO AUTOMATIC TELEPHONE MANUFACTURING COMPANY LIMITED, OF LIVERPOOL, ENGLAND

MAGNET CORE

No Drawing. Application filed March 25, 1931, Serial No. 525,339, and in Great Britain March 31, 1930.

The present invention relates to the construction of magnet cores and is particularly concerned with cores which are made from finely divided material by the application of high pressure. Such cores find considerable application for loading coils of the type used on telephone lines where their special magnetic properties are particularly advantageous. The invention, moreover, may be considered as an improvement in or modification of that set forth in my application, Serial No. 424,738 filed 30th January 1930 which relates to a process for producing the finely divided material by drawing it into wire of very small diameter which is then cut up into short lengths.

The improvement according to the invention consists in that the material is utilised in the form of tape rather than the form of wire, that is to say instead of having a circular section it has a section of which one dimension is considerably greater than the other. The chief advantage of this form of construction is that by the substitution of tape for wire the hysteresis and eddy current losses are considerably reduced.

The tape may be produced by including an additional step in the process previously described whereby the nickel-iron wire is passed through rollers so as to flatten it out either before or after it reaches the cutting machine, or alternatively the tape may be manufactured by a separate process. The process for the actual manufacture of the cores may be as described in the application above referred to and preferably also includes the process described in my application Serial No. 498,694 filed 28th November 1930 by which the particles are aligned so as to have their axes in the same direction.

What I claim as new and desire to secure by Letters Patent is:

1. The method of making magnet cores which consists in drawing magnetic material into the form of a wire, flattening the wire into the form of a tape, cutting the tape into short lengths, insulating the short flat lengths of material from one another, and consolidating the same into a mass by pressure.

2. The method of making magnet cores which consists in drawing magnetic material of nickel-iron alloy into the form of a wire, passing the wire through rollers to flatten the same into the form of a tape, cutting the tape into short lengths to form flat particles of the material, insulating the particles from one another, magnetically aligning the particles so that their axes lie in the same direction, and then subjecting the mass to pressure to consolidate the same.

In testimony whereof I affix my signature.

PHILIP NORTON ROSEBY.

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CERTIFICATE OF CORRECTION.

Patent No. 1,878,713.

September 20, 1932.

PHILIP NORTON ROSEBY.

It is hereby certified that the name of the assignee in the above numbered patent was erroneously described and specified as "Automatic Telephone Manufacturing Company Limited", whereas said name should have been described and specified as Automatic Electric Company, Limited, as shown by the records of assignments in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 29th day of November, A. D. 1932.

(Seal)

M. J. Moore,
Acting Commissioner of Patents.

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