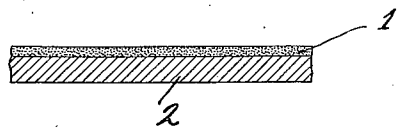
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CARRIER FOR MAGNETIC RECORDING

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CARRIER FOR MAGNETIC RECORDING

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2 Claims. (Cl. 274—41.4)

It is known to record sound waves in that they are converted into electro-magnetic waves and these act on a magnetizable band, with the aid of which the electric waves can be reconverted into sound waves.

When using steel or nickel band or wire for this purpose it has been found that a metal obtained from the corresponding carbonyl is most suitable on account of its excellent magnetic properties and its chemical purity.

For this purpose iron and nickel come primarily into question, but also compounds of different metals may be advantageously employed.

It is evident, that the metals employed as carrier must possess paramagnetic properties, as is the case for example with iron, nickel and cobalt carbonyls. In the case of compounds and alloys it is sufficient if one component possesses paramagnetic properties so that the compound or alloy acts paramagnetically.

The metals in question are considerably more suitable as carrier when used in finely pulverized state than a uniform metal band. The metal powder is preferably applied onto a non-magnetic support in known manner with the aid of suitable matrices. Strips of paper or cellulose derivatives are particularly suitable as supports.

Surprisingly good results are obtained with such wave carriers when the carrying layer is made of carbonyl iron powder. The production of such powders is known. By decomposing iron carbonyl it is possible to produce powder with a degree of fineness which is less than 1/1000 mm. This degree of fineness of the iron powder ensures the elimination of secondary noises during the reproduction of the electro-magnetic waves, especially as no foreign admixtures cause a disturbing effect. The electro-magnetic properties of such wave carriers are also surprisingly favourable because it is possible to give the powder a suitable percentage of carbon.

According to that which has been stated above pulverous carbonyl iron alloys may be also employed instead of pulverous carbonyl iron.

An embodiment of the invention is illustrated in the only figure of the accompanying drawing which shows a carrier in band-form in vertical section.

The paramagnetic powder 1 is applied in known manner in a layer of uniform thickness on a non-magnetic support 2, indicated by cross-hatching.

I claim:—

1. A carrier for magnetic recordings, consisting of carbonyl iron.

2. A carrier for magnetic recordings, comprising a metal having ferromagnetic properties obtained by thermal decomposition of iron carbonyl.

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