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SEARCH ROOM

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DYNAMOELECTRIC BRUSH

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2 Claims. (Cl. 117-228)

This invention relates to dynamoelectric brushes, such as used with electric motors and generators, and more particularly to impregnated carbon brushes.

A continuing search is being made for brushes that will operate better and longer. One solution has been to impregnate carbon brushes with various materials which improve the brushes to some extent under certain conditions. Among the impregnants that have been used is polyethylene glycol, which improves brushes to some extent but volatilizes too readily at operating temperatures, so that the improved performance does not last very long.

It is among the objects of this invention to provide an electrical brush which has a considerably longer life than an untreated brush and which has improved operating characteristics throughout the life of the brush.

According to this invention, a carbon brush made in any well-known way is impregnated with polyethylene glycol borate or ethylene glycol borate. The impregnation is accomplished by first mixing the material with water and then impregnating the carbon brush with the solution in any suitable impregnation process. The

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brushes are then dried, leaving them impregnated with the desired additive. For best results, the polyethylene or ethylene glycol borate should constitute from about .2% to 2% by weight of the brush.

5 The material thus added to the brush improves its operation and life by reducing friction, combating heavy build-up of film and reducing sparking. Unexpectedly, the impregnant is stable and does not volatilize at the operating temperatures to which it is subjected. Therefore, the beneficial effect of the additive is maintained throughout the life of the brush.

According to the provisions of the patent statutes, I have explained the principle of my invention and have described what I now consider to represent its best embodiment. However, I desire to have it understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

I claim:

15 1. A dynamoelectric brush comprising a carbon body impregnated with a material selected from the group consisting of polyethylene glycol borate and ethylene glycol borate.

20 2. A brush according to claim 1, in which said material forms from about .2% to about 2% by weight of the brush.

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