(12) **United States Patent**
Aspinwall

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(54) **BLOCK SHEAVES, FRICTION BUSHES OR BOXES FOR**

(76) Inventor: **Lewis Aspinwall**

Lewis Aspinwall
Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Lewis Aspinwall himself of his improvement in making friction bushes or boxes for the sheves for blocks and for other purposes

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To all persons to whom these presents shall come. Be it known that I Lewis Aspinwall of Albany in the County of Albany and State of New York, have invented a new and useful improvement in the art or mode of casting friction bushes for block sheves and for any other purpose for which such bushes may be wanted. These bushes have been heretofore cast in sand or other earth and afterwards finished by turning, drilling &c. which mode as the metal of which they are made is necessarily hard is comparatively slow and tedious. Now the improvement of which I here claim to be the inventor is the casting all parts of said friction bushes (except the pins or studs which may be made of wire) in smooth metallic moulds in such manner as to need no finishing by turning or any other operation after having the moulds (except chamfering or taking the sharp corners from the cylinders which also may be effected in the moulds, but which I think best to do afterwards and also except taking off the sprues or gates from the several articles. To understand this more fully, it may be proper to state that the common patent friction bush now in use consists of a cylindrical box commonly made in two halves, put together Latitudinally, each of which halves is open at the end making when put together a cylinder, open at each end, with an inward flange at each end to contain and steady the rollers and this hollow cylinder contains six more or less friction rollers which roll round within the said box leaving the intermediate space in the center for the pin or pins, theft or gudgeons, on which they are to turn, or which is to turn in them. the whole of the article then consists of two similar half boxes and of the rollers each of which rollers is simply a plain cylinder with a small hole at each end for the steady pins, together with two flat circular rims containing the

the steady pins, which two arms are also held together by any convenient number of steps of wire, the ends of which are riveted on the centres of the said circular plates or arms. But the cylindrical box which contains the rollers may be cast whole instead of being in halves and the form and proportions of the whole may be varied to suit the use for which it is intended. To save the labor and consequent cost of turning and other work in finishing. I cast the said boxes, rollers, and circular arms with the steady pins in smooth metallic moulds neatly fitted together to suit the form of each article: so that they leave the mould in a state of complete finish ready to be put together with the exceptions above named. My moulds I make of cast or wrought iron, but they may be made of any other suitable metal; but of whatever metal made, I claim the casting said articles in smooth metallic moulds so as to need no subsequent finish except as already excepted, as my invention and constituting the improvement herein specified. The exterior form of the moulds and the modes of putting them together may be so infinitely varied and is so much dependent on the fancy of the constructor as to need no specific description.

Witnesses
Jo. Cook
Saml. Blydenburgh

Lewis Aspinwall

(658 words)