

Specification of Richard Lamb : apparatus for supplying atmospheric air.

Contributors

Lamb, Richard.

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A.D. 1839 N^o 8003.

S P E C I F I C A T I O N

OF

RICHARD LAMB.

APPARATUS FOR SUPPLYING ATMOSPHERIC
AIR.

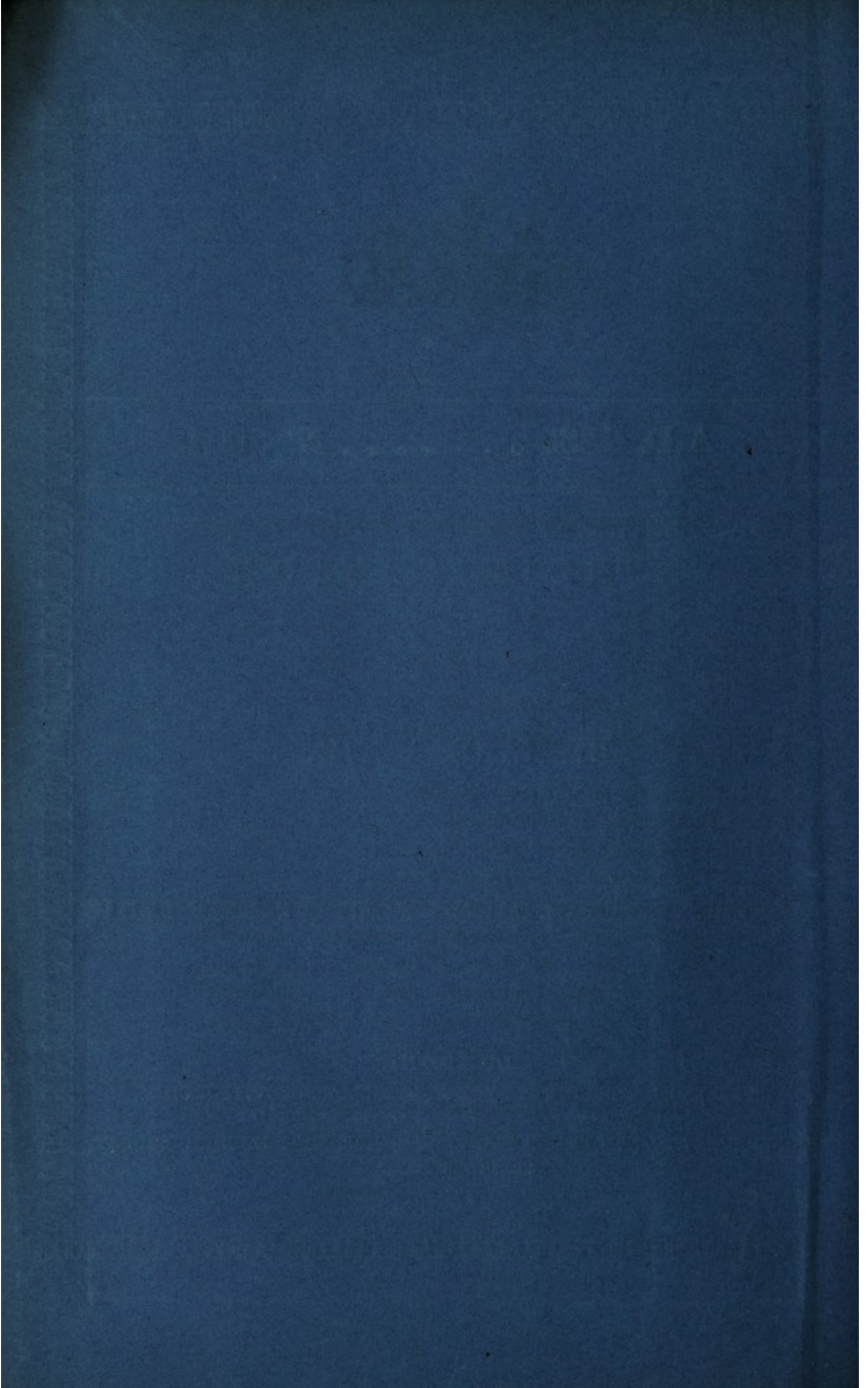
L O N D O N :

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1854.





A.D. 1839 N° 8003.

Apparatus for Supplying Atmospheric Air.

LAMB'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, RICHARD LAMB, of David Street, Southwark, in the County of Surrey, Gentleman, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her
5 Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Fifteenth day of March, in the second year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Richard Lamb, Her especial licence, full power, sole privilege and authority, that I, the said Richard Lamb, my exors, admors, and assigns, or such others as I,
10 the said Richard Lamb, my exors, admors, or assigns, should at any time agree with, and no others, from time to time and at all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick upon Tweed, my Invention of "**IMPROVEMENTS IN APPARATUS FOR SUPPLYING**
15 **ATMOSPHERIC AIR IN THE PRODUCTION OF LIGHT AND HEAT;**" in which said Letters Patent is contained a proviso that I, the said Richard Lamb, shall cause a particular description of the nature of my said Invention, and in what manner the same is to be performed, to be inrolled in Her said Majesty's High Court of Chancery within six calendar months next and immediately
20 after the date of the said in part recited Letters Patent, as in and by the same, reference being thereunto had, will more fully and at large appear.

Lamb's Improvements in Apparatus for Supplying Atmospheric Air, &c.

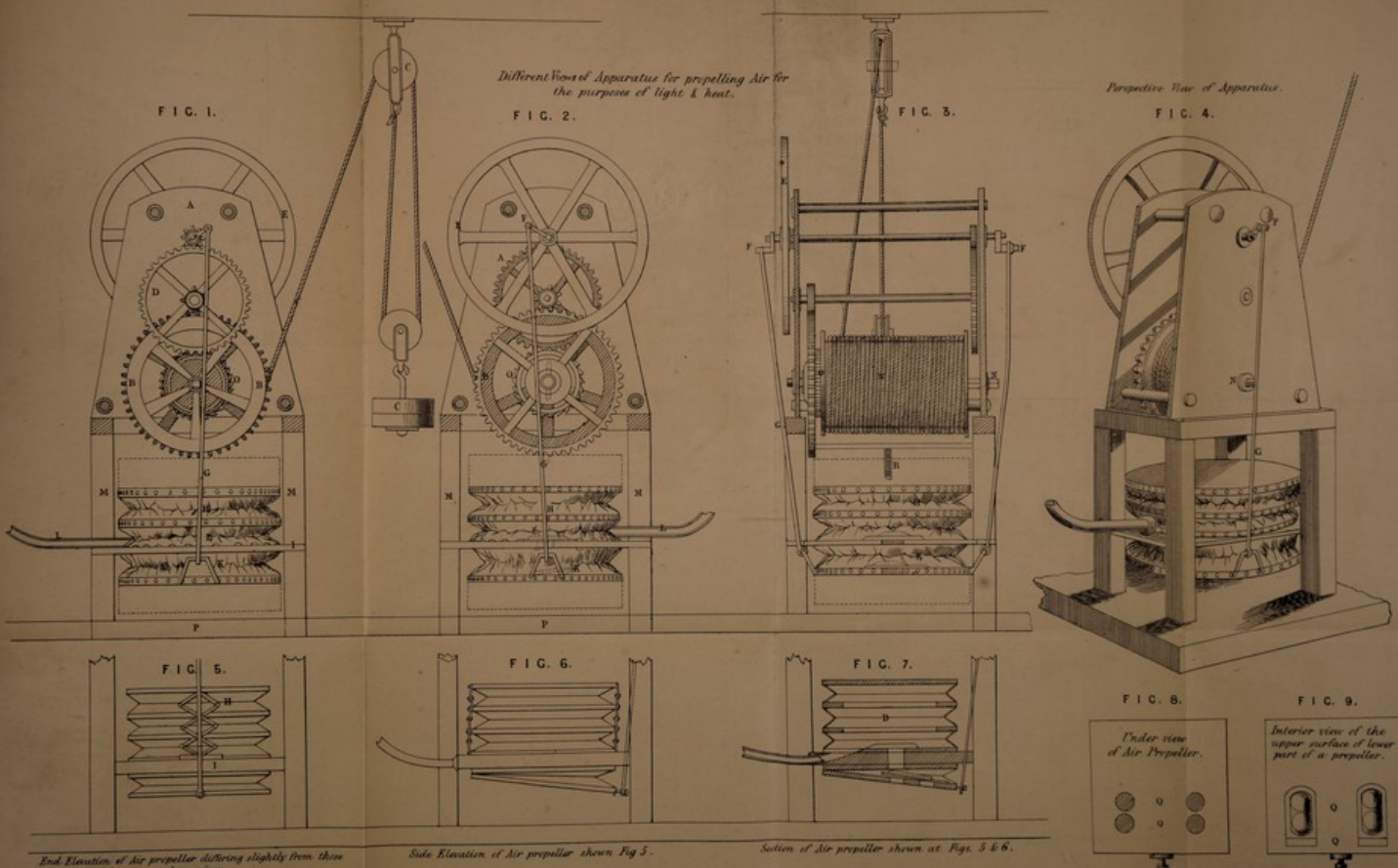
NOW KNOW YE, that in compliance with the said proviso, I, the said Richard Lamb, do hereby declare that the nature of my said Invention, and the manner in which the same is to be performed, are fully described and ascertained in and by the following statement thereof, reference being had to the Drawing hereunto annexed, and to the figures and letters marked thereon 5 (that is to say):—

DESCRIPTION OF THE DRAWING.

A the upper frame for the wheels and pinions; this is formed of either brass or iron. B, B, the main wheel, about seven inches diameter, with barrel of about five and a half inches diameter on the same axis. C, C, C, line pulleys and 10 weights. D, the second wheel, of about four inches diameter, which drives the pinion on the fly wheel shaft. E, E, the fly wheel, of thirteen inches diameter. F, F, cranks, quarter of an inch thick, by one eighth of an inch wide, and one inch long. These work the rods connected with air propeller H. G, G, the metal or wooden rods, which form the connection between the cranks F, F, 15 and air propeller L. These rods are about two feet long. H, air propeller, which may be circular, square, or any other external form. It consists of two chambers, composed of the middle board I, and three other flat pieces of wood, of about ten inches diameter, which are united by three connections made of leather, india-rubber, cloth, or other suitable flexible material. The upper 20 chamber is about eight inches in depth when extended. The lower chamber is about five inches in depth when extended. These are nailed, glued, or otherwise fastened securely to the wood, so as to be perfectly air-tight. I, the middle board, which is fixed to the lower frame with internal valve to receive the air from the lower chamber K, and retain it for the service pipe L. 25 K, the lower chamber of air propeller or feeder, with external valve. L, the air or service pipe, seven eighths of an inch diameter. M, M, lower frame, which supports the air propeller, made of wood, and having four uprights about twelve inches in height. N, the square of barrel for winding up. O, the ratchet wheel, about four inches diameter. P, the bottom or stand, on which the 30 whole apparatus is to built or fixed. It should be stated, that there are springs which press on the upper surface of the air propeller, which aids to keep the action of the propeller uniform in the quantity of air propelled out thereof.

Having given the above reference to the Drawings, by which the nature of the machinery is clearly exposed, I will now proceed more fully to describe the 35 action of the same, which is as follows:—The first motion is the weight C acting upon the line connected with the barrel B, which puts in motion the main wheel B, B. This drives the second wheel, which acts upon the fly

Different Views of Apparatus for propelling Air for the purposes of light & heat.



End Elevation of Air propeller differing slightly from those above given.

Side Elevation of Air propeller shown Fig 5.

Section of Air propeller shown at Figs. 5 & 6.

Under view of Air Propeller.

Interior view of the upper surface of lower part of a propeller.

The encolled drawing is partly colored.

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A.D. 1839. MARCH 15. N^o 8003.
LAMB'S SPECIFICATION.

Side Elevation.
Different views of an air propeller suitable to be used with the apparatus shown in the ^{other} drawing. (2 SHEETS)
DRAWING N^o 2.

Side Elevation.
FIG. 10.

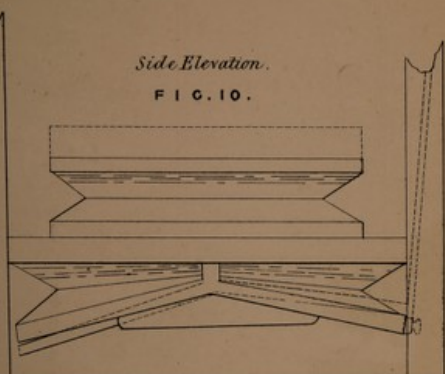
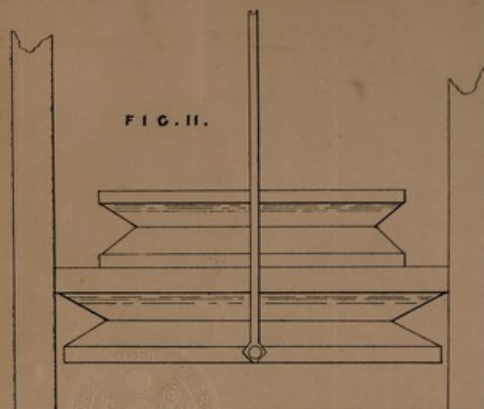


FIG. 11.



Section
FIG. 12.

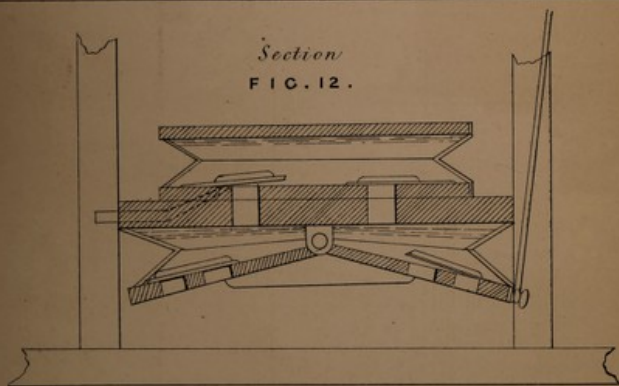


FIG. 13.

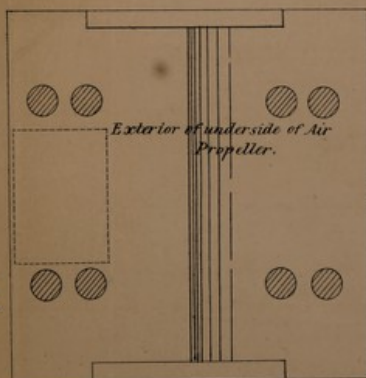
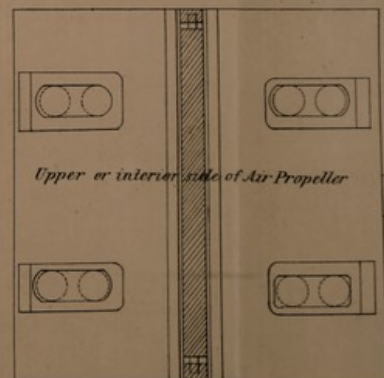


FIG. 14.



The enroled drawing is partly colored.

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Lamb's Improvements in Apparatus for Supplying Atmospheric Air, &c.

wheel pinion, putting in motion the cranks connected with the lower chamber K, which supplies the upper chamber with air for the purpose of being forced by means of springs R, through the service pipe, which is placed in connection with a lamp, forge, fire, furnace, or other medium for the production of light
5 or heat, where a regular current of atmospheric air is desired.

The apparatus may be also worked with or without the addition of another chamber, called a receiver or regulator, which has the effect of rendering the supply of air more steady. It is to be observed that I do not confine myself to the proportions above specified, nor the materials which I have named, nor
10 the situation relatively of the air propeller with the moving power, as it may be placed by the side of it or elsewhere. These particulars will vary according to the extent of atmospheric air required, the locality in which the apparatus is fixed, and other peculiar circumstances of the case.

I would now state that I do not claim as my Invention any part of the
15 machinery or apparatus above described and set forth, similar mechanism and apparatus having been in parts before made and used under various circumstances and modifications, and applied to divers purposes. But my Invention consists in the combination of the distinct parts never before so united, viz^t, the union of the moving powers or machinery contained in the upper frame A
20 (together with the line pullies and weights C, C, C, with the propeller or bellows and its appendages contained in the lower frame M, M, as shewn in Figure 1, whereby I am enabled to supply a continued stream of atmospheric air where required in the production of light and heat. But I do not confine myself to the use exclusively of the above mechanical power for the purpose of
25 working the apparatus contained in the lower frame, as above described. I also claim as my Invention the combination of the said apparatus contained in the lower frame M, M, with the ordinary smoke jack, wheel jack, bottle jack, and all other jacks at present in use, as well as with the power to be derived from a steel or iron spring, or windmill, or watermill, or any machinery con-
30 nected with any or either of the same, such a combination and combinations never having been hitherto previously made. Neither do I claim as my Invention any particular form of lamp, forge, fire, or furnace, with which the above-mentioned apparatus may be used, as the object of my Invention is (as before described, merely to produce a continued steady current of atmospheric
35 air where required for such purposes.

In witness whereof, I, the said Richard Lamb, have hereunto set my hand and seal, this 13th day of September, One thousand eight hundred and thirty-nine.

RICH^d. (L.S.) LAMB.

Lamb's Improvements in Apparatus for Supplying Atmospheric Air, &c.

DUCKWORTH.

AND BE IT REMEMBERED, that on the Thirteenth day of September, in the year of our Lord 1839, the aforesaid Richard Lamb came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according 5 to the tenor of the Statute made for that purpose.

Inrolled the Fourteenth day of September, in the year of our Lord One thousand eight hundred and thirty-nine.

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