

No. 715,304.

Patented Dec. 9, 1902.

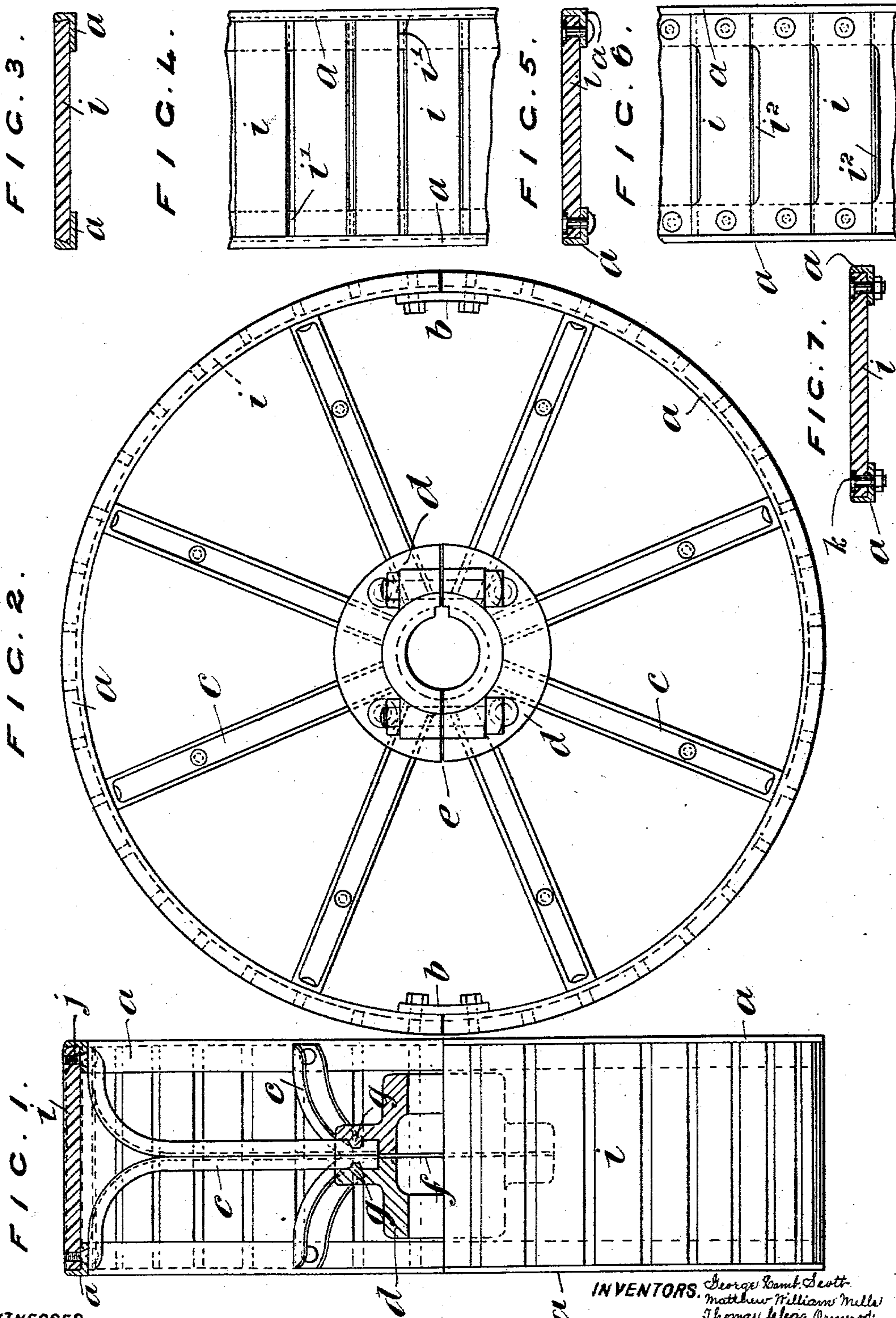
G. L. SCOTT, M. W. MILLS & T. C. ORMEROD.

CONSTRUCTION OF DRIVING OR SIMILAR PULLEYS.

(Application filed Apr. 5, 1902.)

2 Sheets—Sheet 1.

(No Model.)



WITNESSES:
G. M. Aldom
Adeline Blaine Gleason.

INVENTORS. George Lamb Scott
Matthew Williams Mills
Thomas Clegg Ormerod

BY *Richard*
ATTORNEYS

No. 715,304.

Patented Dec. 9, 1902.

G. L. SCOTT, M. W. MILLS & T. C. ORMEROD.
CONSTRUCTION OF DRIVING OR SIMILAR PULLEYS.

(Application filed Apr. 5, 1902.)

2 Sheets—Sheet 2.

(No Model.)

FIG. 9.

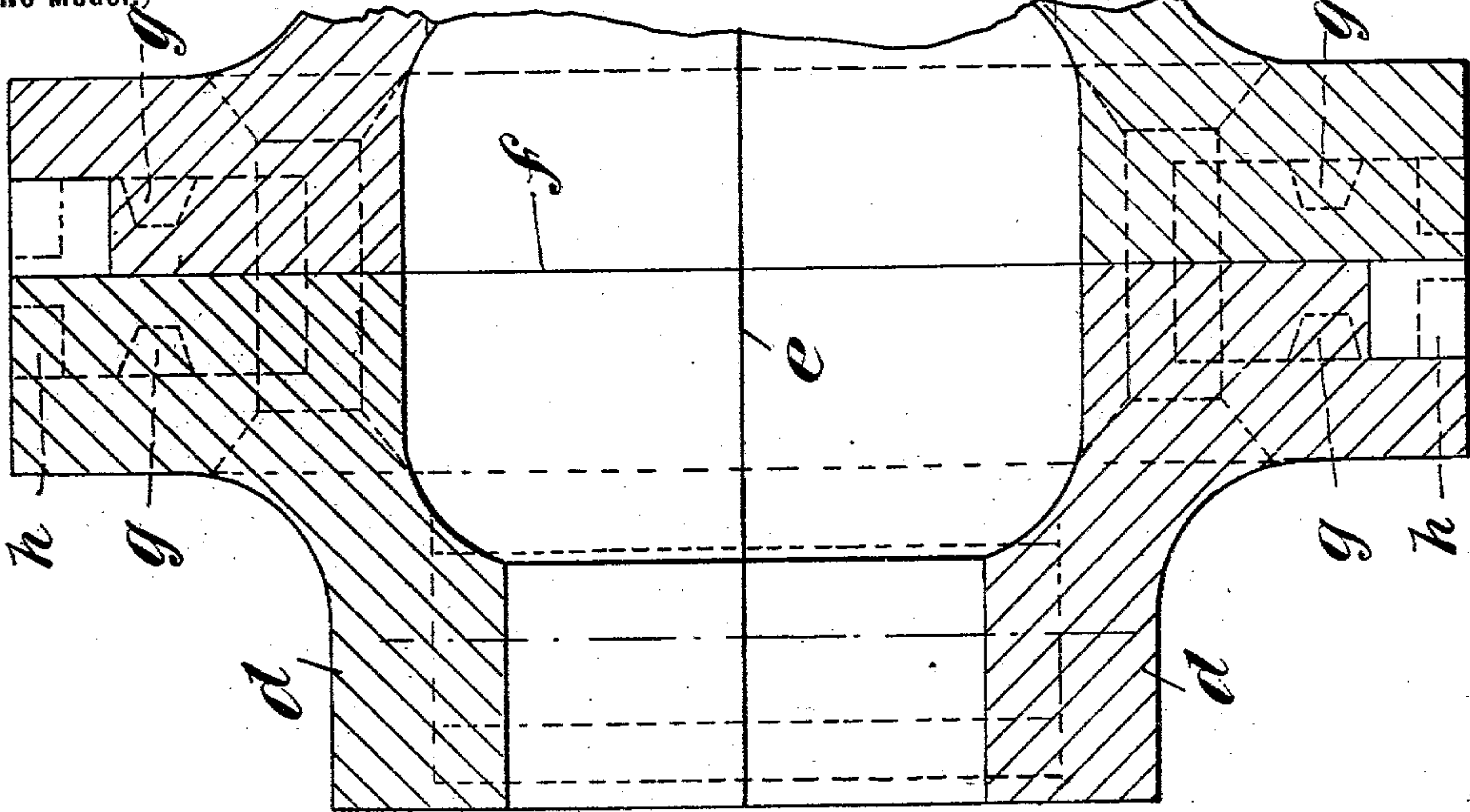
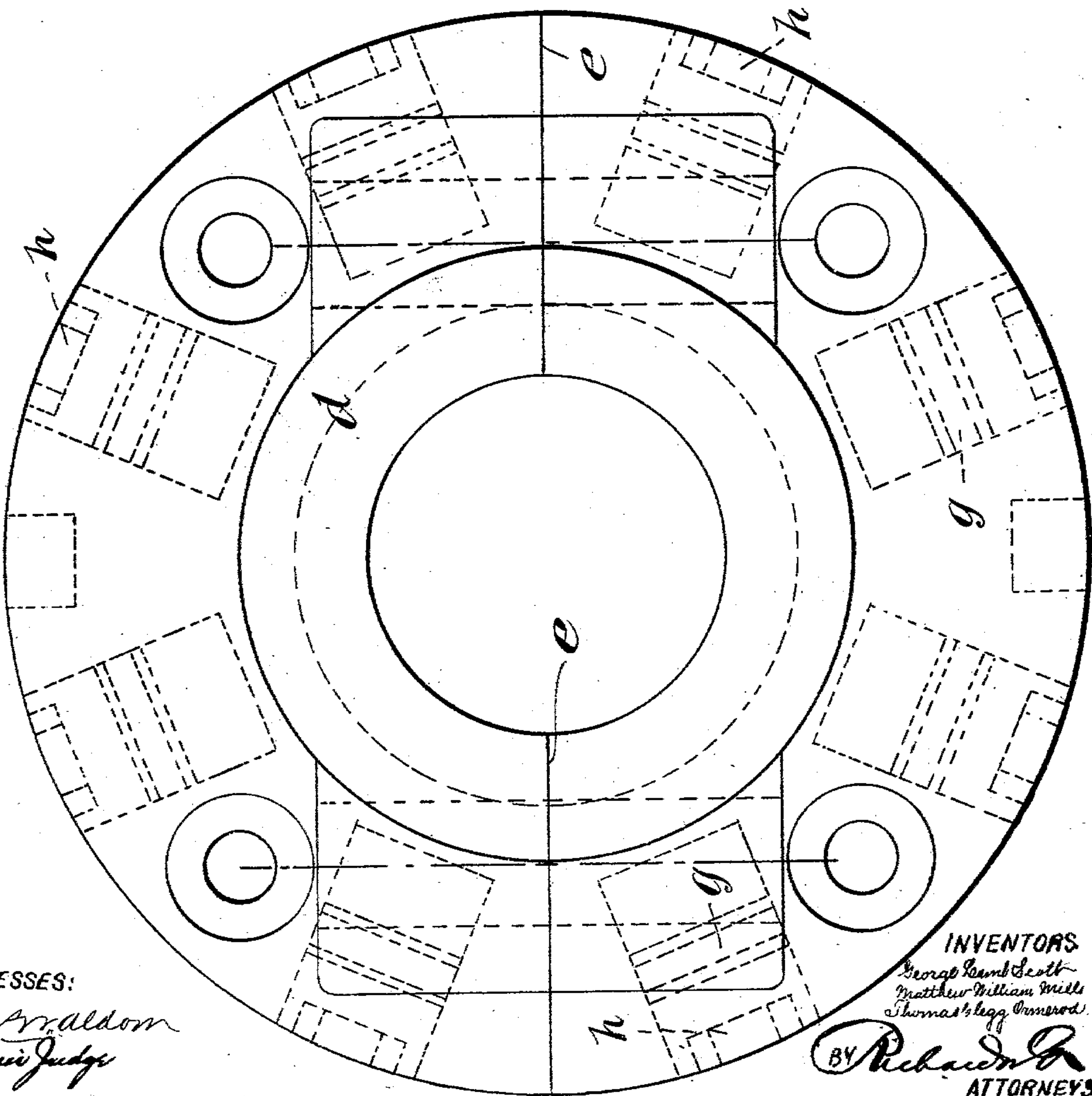


FIG. 8.



WITNESSES:

Haroldom
Samuel Judge

INVENTORS

George Lamb Scott
Matthew William Mills
Thomas Legg Ormerod

BY *Richard R.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE LAMB SCOTT, OF ROCHDALE, AND MATTHEW WILLIAM MILLS
AND THOMAS CLEGG ORMEROD, OF HEYWOOD, ENGLAND, ASSIGNORS
OF ONE-FOURTH TO JAMES PILKINGTON ORMEROD, OF CASTLETON,
ENGLAND.

CONSTRUCTION OF DRIVING OR SIMILAR PULLEYS.

SPECIFICATION forming part of Letters Patent No. 715,304, dated December 9, 1902.

Application filed April 5, 1902. Serial No. 101,511. (No model.)

To all whom it may concern:

Be it known that we, GEORGE LAMB SCOTT, engineer, of Oaklands, Rochdale, and MATTHEW WILLIAM MILLS and THOMAS CLEGG ORMEROD, trading as James Mills & Co., engineers and millwrights, of Moss Foundry, Heywood, in the county of Lancaster, England, subjects of the King of Great Britain and Ireland, have invented certain new and useful Improvements in the Construction of Driving or Similar Pulleys, (for which we have made application for patent in Great Britain, No. 714, dated January 10, 1902,) of which the following is a specification.

Our invention relates to the construction of driving and similar pulleys. Under our invention the driving-peripheries of such pulleys are formed with transverse lags of wood, such peripheries being used in combination with a metallic boss and arms. Instead of wood we might use transverse metal plates with a smooth or roughened surface, although we prefer wood.

The method of carrying our invention into effect may be varied in point of detail, the accompanying drawings showing convenient methods.

Figure 1 shows in end view, partly in section, a pulley constructed in accordance with our invention. Fig. 2 is a face view of same. Fig. 3 is a cross-section showing one method of securing the wooden transverse lags to the side rings of metal. Fig. 4 is a plan of same. Figs. 5, 6, and 7 show a modified form of lag and the method of securing same. Fig. 8 is a face view, on an enlarged scale, of the pulley-hub. Fig. 9 is a section thereof at right angles to Fig. 15.

In constructing a pulley in accordance with our invention, as shown in Figs. 1 and 2, we provide side rings of angle-iron *a*, which for convenience of mounting upon the shaft may be made in halves and bolted together at *b*. The side angle-iron rings are riveted to the spokes *c*, which are formed from two pieces of channel-iron riveted back to back, the outer ends being branched, as shown in Fig. 1, to connect with the side rings *a*. To secure the spokes to the hub *d*, we provide a special form of hub, which is shown on an enlarged scale in Figs. 15 and 16. In addition to dividing

the hub *d* at *e* we also form these halves in two parts, which are cut vertically at *f* and secured together by rivets or bolts, so that they form faces or flanges. These faces are provided with projections *g* to fit into corresponding recesses cut in the web of the channel-iron, as plainly shown in Fig. 1. Projections *h* are also provided to fit within the channel of the channel-iron spokes, so that the spokes are firmly held and cannot be withdrawn from the hub. The periphery of the pulley is formed with transverse lags *i* of wood, with the grain preferably arranged transversely across the pulley. These lags may be arranged abutting against each other; but we prefer to space them slightly apart to permit of the ready escape of air from between the belt and the periphery of the pulley. In Fig. 1 the lags *i* are shown secured to the angle-iron rings *a* by means of screws *j*. This method may be readily varied. Fig. 3 shows in cross-section the angle-iron rings *a* and lags *i* formed with dovetails, so as to secure the lags in position. Fig. 4 is a plan of same, showing the method of spacing the lags *i* apart by means of packing-pieces *i'*. Fig. 5 shows the lags riveted to the side rings. Fig. 6 shows in plan view another method of obtaining the air-spaces by cutting away a portion of the material of the lags at *i''*. In Fig. 7 the lags *i* are shown secured to the side rings *a* by means of bolts *k*.

We declare that what we claim is—

A driving-pulley having a hub *d* formed in segments and having internal projections, metallic spokes *c* of double channel-iron having branching arms and recesses to engage with the internal projections of the hub, metallic side rings secured to the branching arms of the spokes, and transverse lags of wood with intermediate air-spaces secured to the metallic side rings, substantially as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

GEORGE LAMB SCOTT.

MATTHEW WILLIAM MILLS.

THOMAS CLEGG ORMEROD.

Witnesses:

JOSHUA ENTWISLE,
ALFRED YATES.