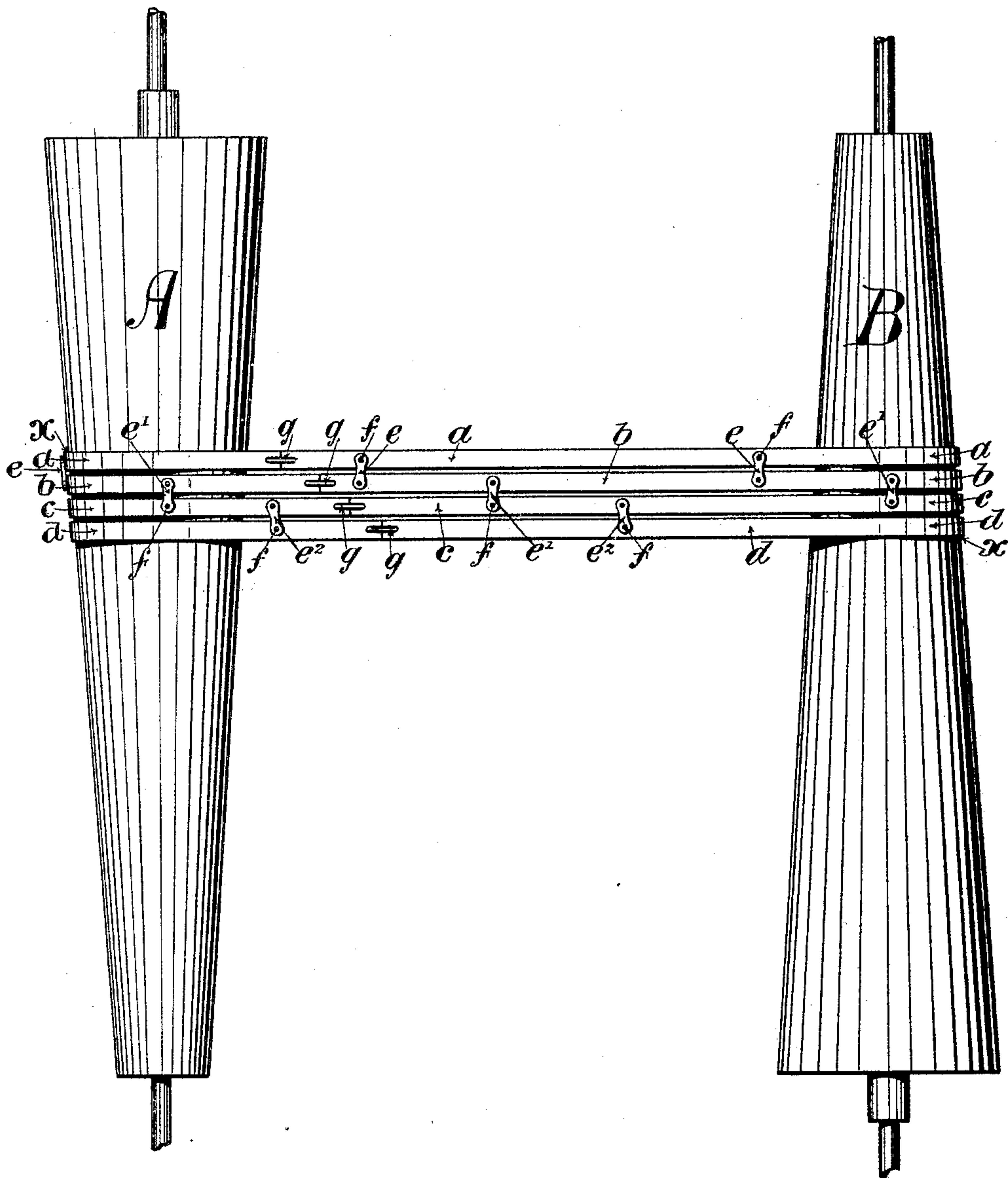


(No Model.)

J. McQUEEN & W. MOORES.  
DRIVING BELT.

No. 467,765.

Patented Jan. 26, 1892.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN McQUEEN AND WALTER MOORES, OF MANCHESTER, ENGLAND.

## DRIVING-BELT.

SPECIFICATION forming part of Letters Patent No. 467,765, dated January 26, 1892.

Application filed May 2, 1891. Serial No. 391,364. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN McQUEEN and WALTER MOORES, subjects of the Queen of Great Britain, and residents of Manchester, England, have invented certain new and useful Improvements in Driving-Belts, of which the following is a full, clear, and exact description.

Our said invention relates to driving-belts for transmitting motion in and to machinery, as is well understood, and refers particularly to such belts as are used to communicate motion from one revolving cone to another, as is frequently the case in textile and other machinery—such, for example, as scutching-machines, slubbing and intermediate frames, and the like. When an ordinary belt is applied to the driving of cones, it will be evident that on each cone one edge or side only of the belt is in driving contact with the periphery of such cone, the other edge or side being slack and doing practically little or no work. On both cones the belt grips most strongly the largest diameter with which it is in contact, and, as on the driving-cone this point of gripping contact is diagonal to that on the driven cone, it will be evident that the driving must be faulty and irregular. The wider the belt the more apparent will this defect become.

The object of our invention is to obviate these disadvantages. We divide the belt in its breadth into several widths, or rather arrange a series of narrow belts side by side and connect the various widths to each other in such a manner as that, while they are for practical purposes independent of each other, they cannot, nevertheless, either encroach upon each other or become dissociated. To obtain this result, we connect the several independent and parallel widths composing the belt by means of pivoted sheet-metal links, each link extending between two adjacent widths.

The construction and advantage of the improved belt will be more apparent from an inspection of the annexed drawing, which is a plan view of two cones connected by a driv-

ing-belt of the improved description. In the drawing we show a belt extending between two cones A and B and composed of four widths or strips *a b c d*, although it will be apparent that a greater or less number might be used. The various widths are connected by links *e e' e²*, of thin sheet metal, which are pivoted loosely on rivets *f*, secured to the strips. These links are distributed at suitable intervals upon the belt. For example, the links *e* connect the first outer strip *a* to the second strip *b*. The links *e'* connect the strip *b* to the strip *c*, and the links *e²* the strip *c* to the strip *d*. The butt-ends of the respective strips are joined by means of hooks *g* or by any suitable fastener, or they might be sewed together. The butt-ends of the strips are preferably made to break joint in the manner shown in the drawing. The effect of this arrangement is that, while the divided belt is by these connections made practically one belt, the driving-power of such a belt is very materially increased. In our improved belt the outer edges or strips *a* and *d* of the belt which ride on the higher part of each cone-surface, as at *x* in the drawing, and which in a homogeneous belt would do almost all of the work, have movement independently of the other widths *b* and *c*, and therefore allow the central strips to have driving contact with the peripheries of the cones, so as to take their proper share of the work.

We claim as our invention—

In a driving-belt, the combination, with a plurality of parallel strips and hooks for joining the ends of the same together, of loose flat metal links pivoted to said strap at intervals and connecting them together, substantially as and for the purpose cited.

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

JOHN McQUEEN.  
WALTER MOORES.

Witnesses:

J. ENTWISLE,  
E. QUICK.