

(No Model.)

J. SIVITER.

METHOD OF MANUFACTURING BLANKS FOR AXLE BOXES.

No. 411,876.

Patented Oct. 1, 1889.

FIG. 1.

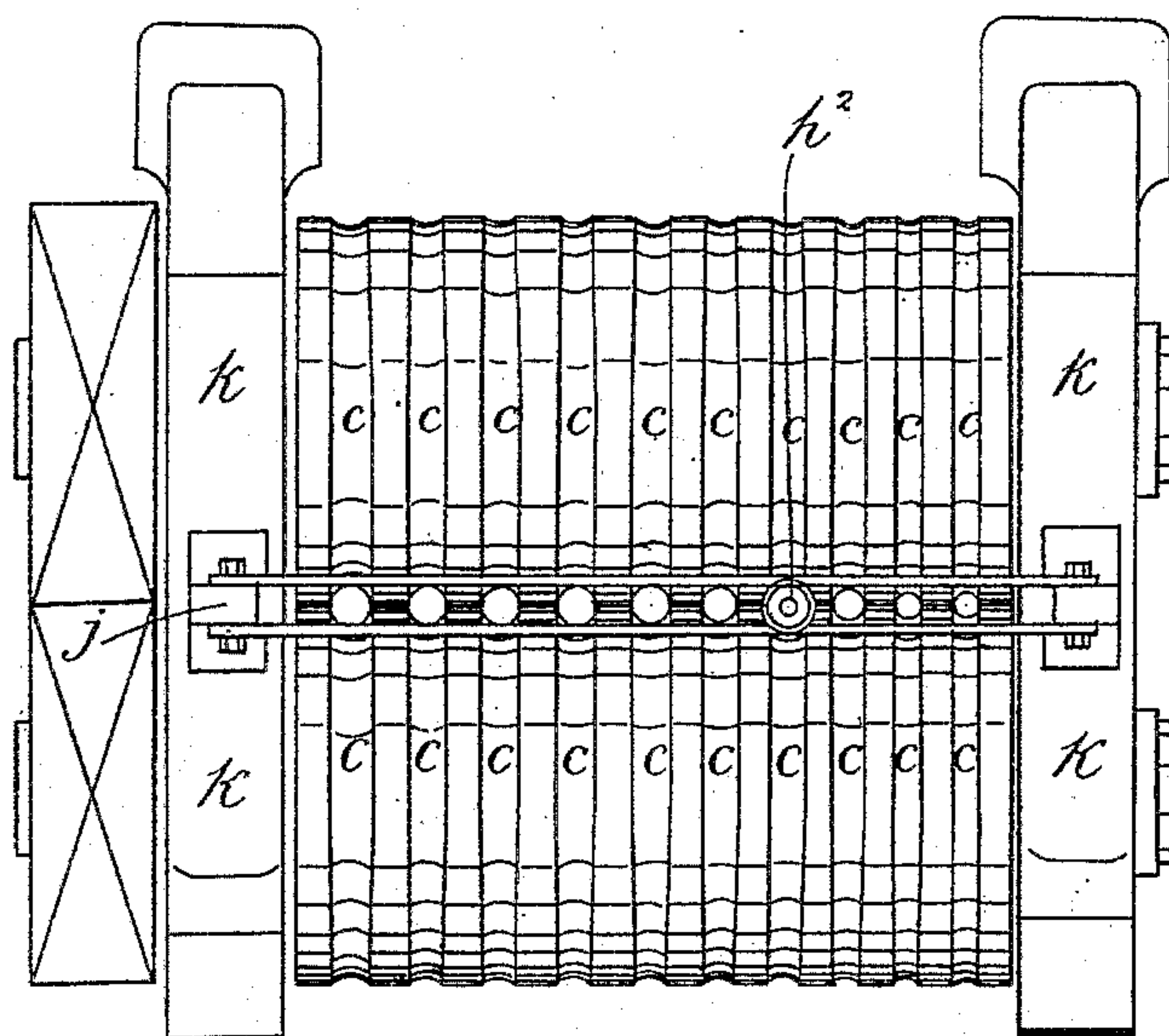


FIG. 2.

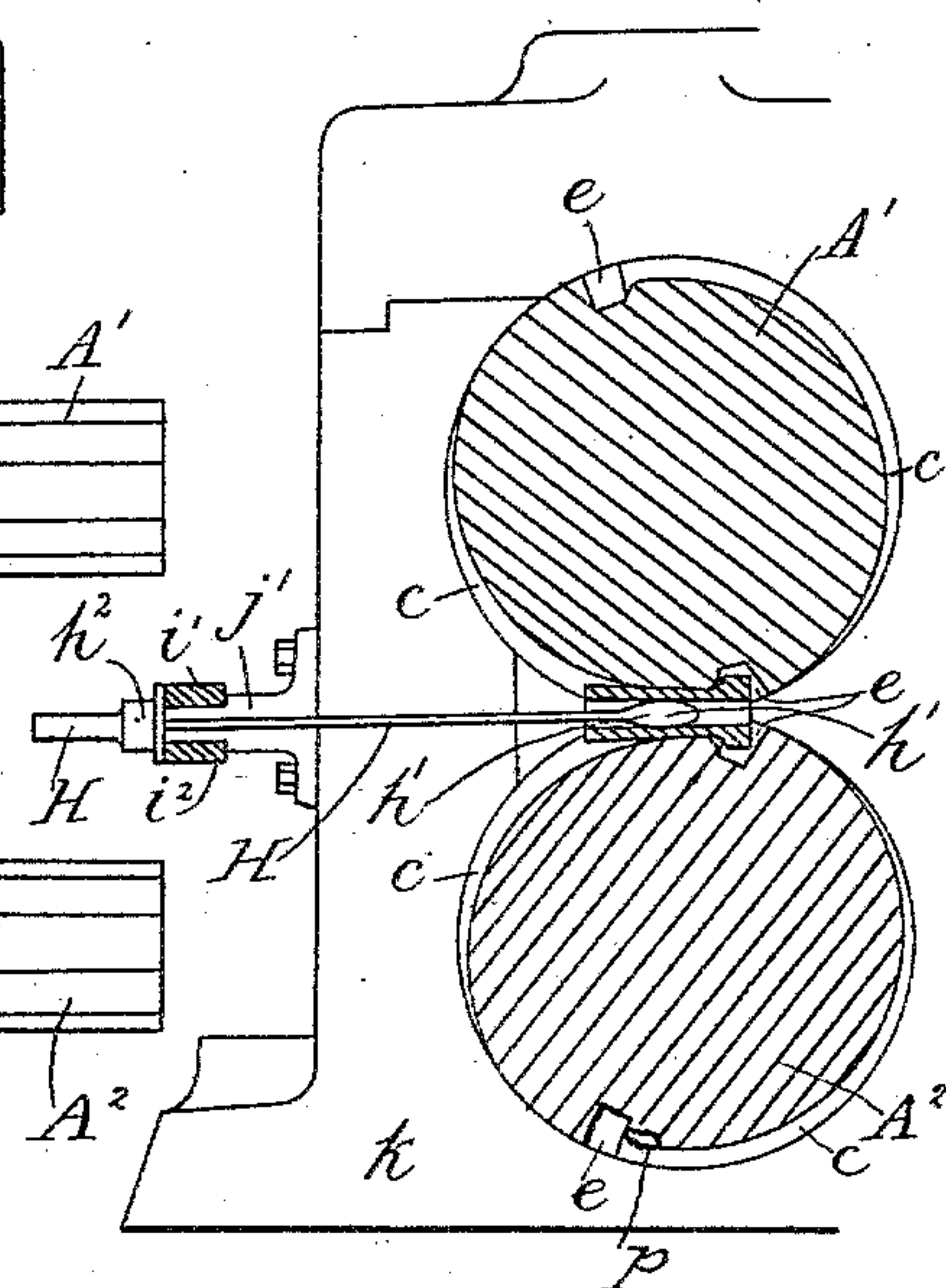
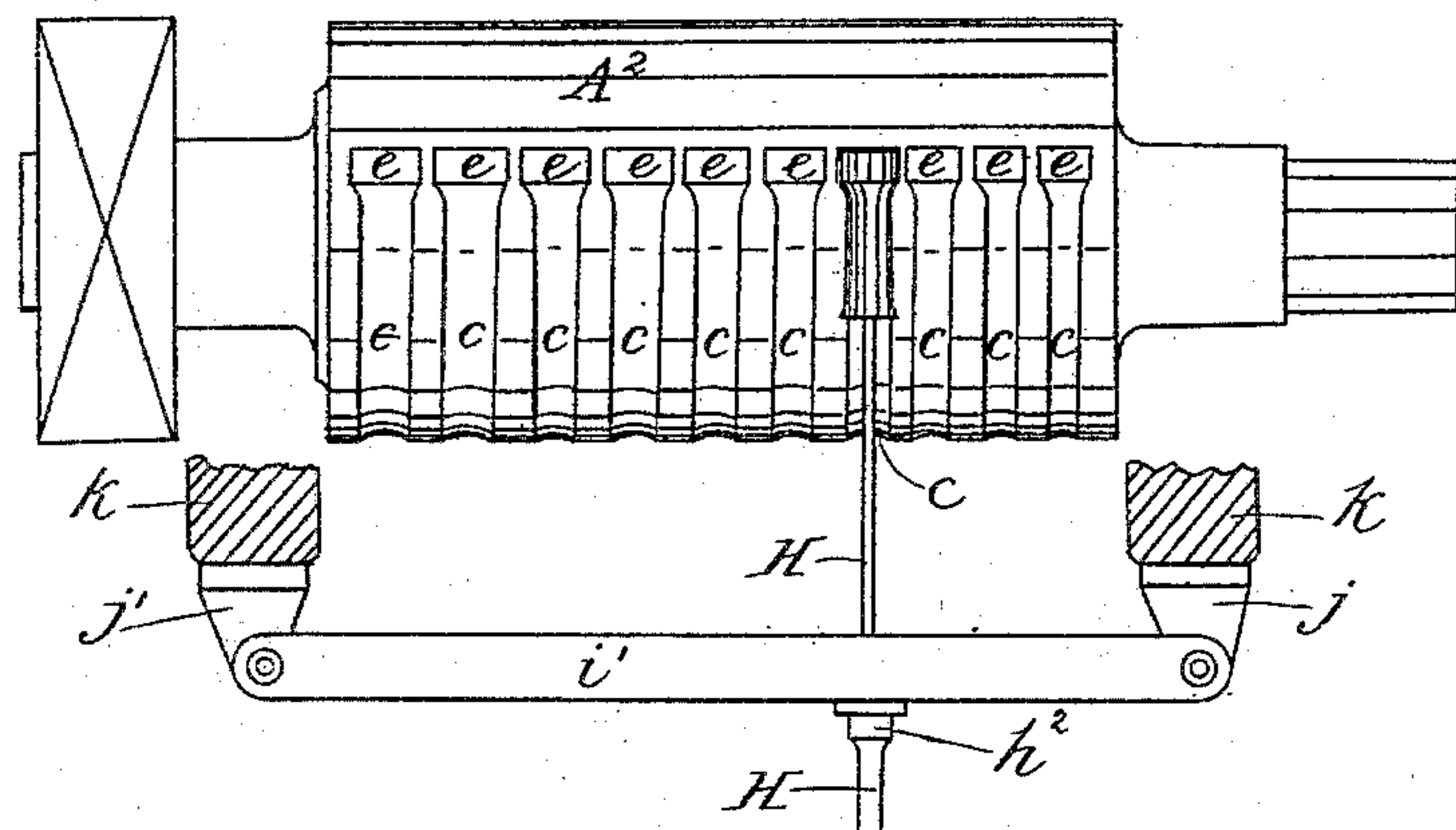


FIG. 3.



WITNESSES

Charles Brewster & Co.
Herbert Whitehouse.

INVENTOR

John Siviter.

UNITED STATES PATENT OFFICE.

JOHN SIVITER, OF HALESOWEN, COUNTY OF WORCESTER, ENGLAND.

METHOD OF MANUFACTURING BLANKS FOR AXLE-BOXES.

SPECIFICATION forming part of Letters Patent No. 411,876, dated October 1, 1889.

Application filed January 23, 1889. Serial No. 297,310. (No model.)

To all whom it may concern:

Be it known that I, JOHN SIVITER, a subject of Her Majesty the Queen of Great Britain, residing at Halesowen, in the county of Worcester, England, have invented certain new and useful Improvements in the Method of Manufacturing Blanks for Axle-Boxes for Carriages and other Road-Vehicles, of which the following is a specification.

My invention is an improved mode of manufacturing tubular axle-boxes.

In the drawings, Figure 1 is a front view of the mechanism for carrying out my method. Fig. 2 is a sectional view. Fig. 3 is a plan view, partly in section.

In rolling down a short piece of tube to form a single axle-box, I support the inside by a mandrel H, which has a swell h' at its front end, corresponding with the size of the bore of the required axle-box and a collar h^2 near the other end. The mandrel is supported between the two bars $i' i^2$, which are fixed in front of the rolls to the two brackets $j j'$, fixed to the roll-housings k . The bars $i' i^2$ are so near together that the collar h^2 of the mandrel cannot pass between them, and the mandrel is made just long enough for the swell h' to come between the rolls when the collar h^2 is against the front of the bars. (See Fig. 12.) The short piece of tube is rolled by being threaded onto the mandrel H, which is drawn forward for that purpose. The mandrel and tube are then pushed forward to the recess e between the rolls and the tube rolled off the mandrel which supports the inside, while the barrel part is reduced in diameter. The mandrel is then drawn forward again and the tube threaded thereon and rolled

through the next succeeding gate, and so on until the required reduction of the barrel part d' has been obtained.

When a feather or feathers o is or are required on the outside of the axle-box, recesses p , (one only being shown,) corresponding therewith, are formed in the rolls or roll-segments, as in Fig. 2, so as to form such feather or feathers by rolling at the same time as the collar and barrel parts are formed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The improved method of manufacturing axle-boxes for carriages and other road-vehicles, which consists in passing a heated tubular blank between rolls which form a reduced part or parts, and a collar or collars thereon corresponding, respectively, with the barrel and collar parts of the required axle-boxes, the said tubular blank meanwhile being supported internally by a mandrel, substantially as hereinbefore described.

2. The improved method of manufacturing axle-boxes for carriages and other road-vehicles, which consists in passing a heated round blank between rolls which form a reduced part or parts, and a projecting feather or feathers and a collar or collars thereon, corresponding, respectively, with the barrel, feather, and collar parts of the required axle-boxes, substantially as hereinbefore described.

In testimony whereof I have signed my name in the presence of two subscribing witnesses.

JOHN SIVITER.

Witnesses:

CHARLES BOSWORTH KETLEY,
HERBERT WHITEHOUSE.