

C. S. C. SYMONDS.  
Steam and Hydraulic Packing.

No. 204,860.

Patented June 11, 1878.

Fig. 1.

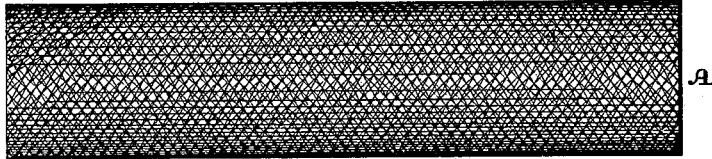


Fig. 2.

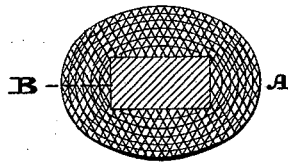
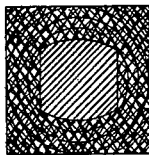


Fig. 3.



Witnesses:

*No. 10*

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Inventor:

*Chas. S. C. Symonds*

by *John A. Dierschheim*

ATTORNEY.

# UNITED STATES PATENT OFFICE.

CHARLES S. C. SYMONDS, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN STEAM AND HYDRAULIC PACKING.

Specification forming part of Letters Patent No. 204,860, dated June 11, 1878; application filed April 8, 1878.

*To all whom it may concern:*

Be it known that I, CHARLES S. C. SYMONDS, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Steam and Hydraulic Packing, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of packing embodying my invention. Fig. 2 is a transverse section thereof. Fig. 3 is a similar section, showing the operation of the packing.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a packing having a rubber core of rectangular form, of unequal sides, and exterior fabric of concentric braids of elliptical form, so that when the packing is applied and compressed in position the surface of the fabric will become quadrilateral, or nearly so, so as to present a flush surface on each side of the packing, and consequently produce close and tight joints between the parts that are packed.

Referring to the drawings, A represents the exterior fabric or material, and B the core within the same. This core is of the form of a rectangular parallelogram in cross-section, and the fabric A is braided in concentric end-

less layers, or placed thereover, assuming an elliptical form, the several layers being coated with lubricant.

When the packing is applied and compressed in position, the long sides of the core swell or expand, thus swelling or expanding the narrow diameter of the fabric, and consequently of the packing, whereby, owing to the plates or parts of the cylinder, valve, &c., between which the packing is confined and in contact, the packing becomes quadrilateral, or nearly so, in cross-section, as shown in Fig. 3, thus presenting a surface on each side which is flush with the respective plates or parts, and consequently producing close and tight joints between the same, it being noticed that there are no crimps or breaks in the exterior surface of the packing.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An elliptical packing constructed of endless layers of fabric, a rubber core of rectangular form, with unequal sides, and lubricant, substantially as and for the purpose set forth.

CHAS. S. C. SYMONDS.

Witnesses:

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J. M. K. WICKERSHAM.