(No Model.)

W. I. GONG.

JOURNAL BOX.

No. 508,217. Patented Nov. 7, 1893.

Fig. 1.

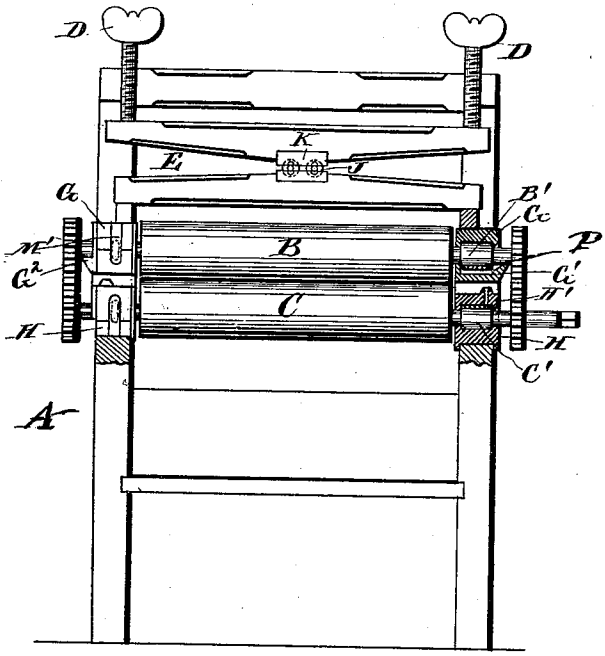


Fig. 2.

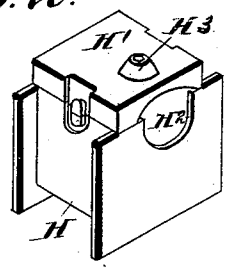


Fig. 4.

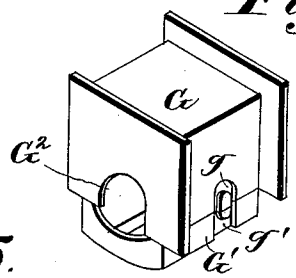


Fig. 5.

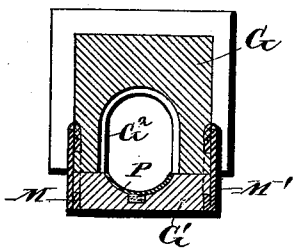


Fig. 7.

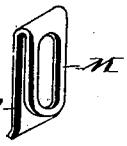


Fig. 3.

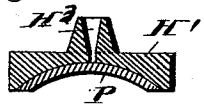
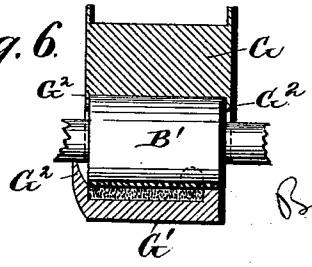


Fig. 6.



Witnesses.

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JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 508,217, dated November 7, 1893.

Application filed March 24, 1893. Serial No. 467,432. (No model.)

To all whom it may concern:

Be it known that I, WONG I. GONG, a subject of the Emperor of China, residing in the city and county of New York, in the State of New York, have invented a certain new and useful Improvement in Journal-Boxes, of which the following is a specification.

The invention pertains to the bearings for the rolls. I fix on the shaft of each at the journals, the parts adjacent to the ends of the rolls, short lengths of nicely finished tubing, securing the same by any suitable means, as by soldering, or by a transverse pin, or both. These tubes constitute cylindrical enlargements of the shaft. I employ boxes supported in the framing, each made in two parts peculiarly shackled together. The bearings of the bottom roll require to be held up; the bearings of the upper roll require to be pressed down; with provision for yielding. I provide a recess on the upper side of each lower bearing and on the lower side of each upper bearing, and inclose in each cavity a piece of woolen or other suitable fabric which serves to hold the oil or soapy water, and allow it to lubricate the bearing for a long period. I provide for supplying oil as required.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is a face view of my wringer partly in vertical section. The remaining figures are on a larger scale. Fig. 2 is a perspective view of one of the lower boxes. Fig. 3 is a cross-section through the upper part thereof in the plane of the oil-hole. Fig. 4 is a perspective view of the upper box. Fig. 5 is a central section through the same. Fig. 6 is a central longitudinal section through the same. Fig. 7 is a perspective view of one of the spring-links which apply on each side of each box and hold the parts of the box together.

Similar letters of reference indicate corresponding parts in all the figures where they appear.

A is the ordinary framing of the wringer, of ash or other suitable material.

B is the upper and C the lower roll.

D are thumb-screws compressing the rolls B, C, together through the medium of wood springs E and suitable rubber springs J and bearing pieces K.

On the shaft of each roll are fixed short lengths of tubing. These may be tinned and driven on over the end and moved to the right position and secured by soldering. The exteriors and the ends of these short tubes are truly and smoothly finished. The enlargements formed by these tubes B′, C′, constitute the journals. They are inclosed in bearing-boxes which are formed with internal lips adapted to match against the ends of the tubes. The upper and the lower boxes are to a large extent counterparts of each other. I will describe first the upper box.

G, G′, are the boxes which thus inclose the enlargements B′ of the upper bearings. Each part is formed with a semi-annular recess *g*, *g′*, into which I place a link M of thin metal, provided with a spring-leaf M′, folded as shown, and capable of exerting a gentle elastic force sufficient to keep the link engaged.

The bearing afforded by the main portion G is of metal, and receives the upward or lifting strain to which the upper shaft is always subjected in use. On the lower side of the enlarged journal B′ is a sufficient recess in the part G′ which is loosely filled with a piece of felt or soft fabric P. This serves as a medium to hold and retain oil, and present it constantly to the surface of the enlarged portion B′ of the bearing. When the two parts G, G′, of each box are applied together on the shaft, and the links M, each with its leaf M′, are set in position, the whole is slid downward into place in the framing A, and when the springs and screws are properly set, this part of the wringer is ready for work. The enlarged bearings C′ of the lower shaft are held in corresponding boxes H, H′, which are mainly similar to the upper boxes G, G′, except that the bearings are reversed, the pressure on the shafts of the lower rolls being always downward, and the firm support for the enlargement being in these lower boxes on the under side. The recesses for the fibrous material P are on the upper side in these lower boxes.

Oil is supplied to the lower box through an oil-hole H^3 which is provided with a slightly raised rim, as shown. The nose of an oiler

introduced between the boxes supplies oil through this aperture directly to the cloth P in the recess over the lower roll. One of the outermost lips G^2 formed on the upper box is allowed to project, and receives oil and supplies it liberally to the cloth at the bottom of the upper bearing. Each part of each box is formed with an internal lip at each end which applies closely to the corresponding end of the enlargement.

G^2 are the internal lips on the box G, G', and H^2 are the internal lips on the box H, H'. These lips both restrain the end movement of the shafts and retain the oil.

My bearings are easily put together and separated. They efficiently resist the rending strains tending to separate the rolls, and also resist all forces tending to endwise displacement. They allow the ends of the rolls to come hard up against the inner faces of the respective boxes. They retain the lubricant for a long period.

I claim as my invention—

1. In a wringer, the boxes G, G', formed in two parts, with lips G^2 and having the annular recesses *g*, *g'*, in combination with roller shafts having the enlargements B', C', matching in such boxes, and recesses carrying fibrous material P adapted to retain oil, and with the links M and spring leaves M', all arranged for joint operation as herein specified.

2. The combination with the framing, of the box formed in two parts each having a recess, and the one part fitted over the other, and the link M with opening and spring leaf, substantially as specified.

3. The combination, with the framing, of the box formed in two parts the one over the other and each provided with a semi-annular recess, and internal lip, and a link of thin material provided with a spring leaf and bent upon itself, one portion being formed with an opening, substantially as specified.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

WONG I. GONG.

Witnesses:
M. F. BOYLE,
H. A. JOHNSTONE.