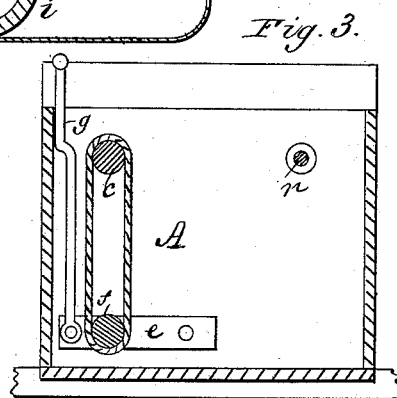
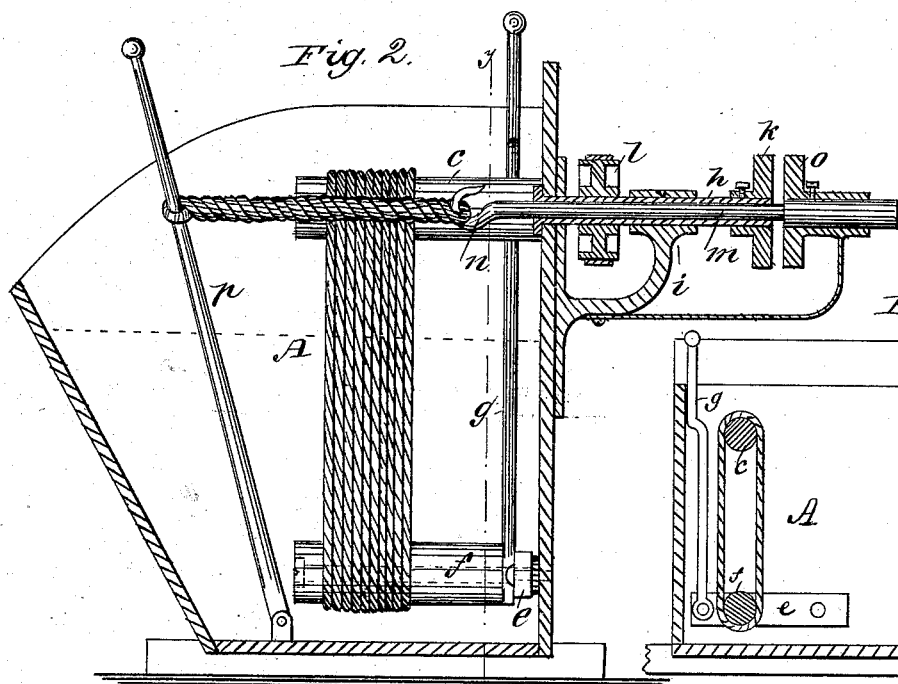
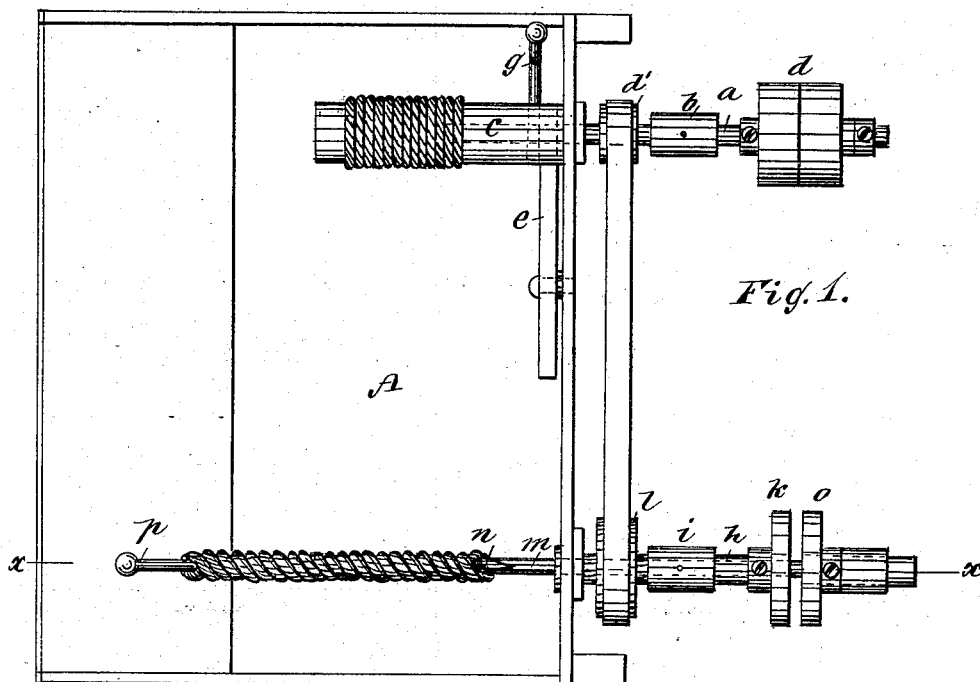


(No Model.)

W. McAFEE.  
YARN SCOURING MACHINE.

No. 261,742.

Patented July 25, 1882.



WITNESSES:

Theo. G. Foster.  
C. Bedgwick

INVENTOR:

Wm. McAfee  
BY *Munn & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM MCAFEE, OF INDEPENDENCE, MISSOURI.

## YARN-SCOURING MACHINE.

SPECIFICATION forming part of Letters Patent No. 261,742, dated July 25, 1882.

Application filed January 18, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MCAFEE, of Independence, Jackson county, Missouri, have invented a new and useful Improvement in  
5 Yarn-Scouring Machines, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate the work of scouring yarn in hanks; to which end the invention consists in the combination,  
10 with a tank or box, of mechanism for both scouring and wringing the yarn, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification,  
15 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the machine. Fig. 2 is a vertical transverse section of the same on line *x x* of Fig. 1, and Fig. 3 is a section on  
20 line *y y* of Fig. 2.

A is a box or tank of suitable size and shape.

*a* is a shaft sustained by bearings in a bracket, *b*, attached on one side of the box, the shaft extending through such side and carrying a  
25 roller, *c*, on its end within the box.

*d d'* are pulleys fast on the outer end of shaft *a*.

*e* is a bar pivoted to the side of and within the box.

30 *f* is a roller on a shaft that is attached to the moving end of bar *e*, and *g* is a rod attached to the bar and extending above the top of box A, this rod being bent, as shown, to take on the side of the box, so as to sustain the bar *e* and  
35 roller *f* in a raised position. At the other end of box A is a tubular shaft, *h*, sustained by a bracket, *i*, and provided with a friction disk or pulley, *k*, on its outer end, and also with a pulley, *l*, that connects by belt to pulley *d'* of  
40 shaft *a*. Through shaft *h* extends a rod, *m*, having its end within the box formed as a hook, *n*, and having a friction-pulley, *o*, on its outer end. In the box is a lever, *p*, pivoted to the bottom thereof.

In operation the box will contain scouring 45 liquid or suds up to and above lower rollers, and rod *g* being raised, the hanks of yarn are placed on rollers *c f*. The rod *g* is then pushed down to tighten the hanks and the shaft *a* revolved by power applied to pulley *d*, so that  
50 the hanks are caused to move through the suds. When sufficiently scoured rod *g* is raised, the hanks are removed and others then put on, and while the scouring is again proceeding the scoured hanks are placed on the hook *n* and  
55 lever *p*, or on a pin at its side, and the lever being drawn outward, the pulley *o* is brought against pulley *k*, consequently revolving rod *m* and twisting and wringing the hanks.

With this apparatus a single operator can 60 do the work rapidly and effectively. The scouring is done thoroughly without tangling or fulling the yarn, and it is left in a softer and better condition. There is also a saving of at least one-half the quantity of soap generally re-  
65 quired. The suds will be kept at proper temperature by steam.

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

1. In yarn-scouring machines, the combination 70 of shaft *a*, roller *c*, pivoted arm *e*, roller *f*, and rod *g* with the box A, substantially as shown and described.

2. In yarn-scouring machines, the tubular shaft *h*, pulley *k*, hooked rod *m*, pulley *o*, and lever *p*, substantially as shown and described,  
75 combined for operation, as set forth.

3. The combination, with box A, of shaft *a*, provided with pulley *d'*, roller *c*, adjustable roller *f*, shaft *h*, provided with pulleys *k l*, and  
80 hook-rod *m*, provided with pulleys *o*, substantially as described, for operation as set forth.

WILLIAM MCAFEE.

Witnesses:

JNO. F. MCAFEE,  
C. C. NOLAND.