

(No Model.)

R. FRASER.
SPOOL WIRE FRAME.

No. 563,154.

Patented June 30, 1896.

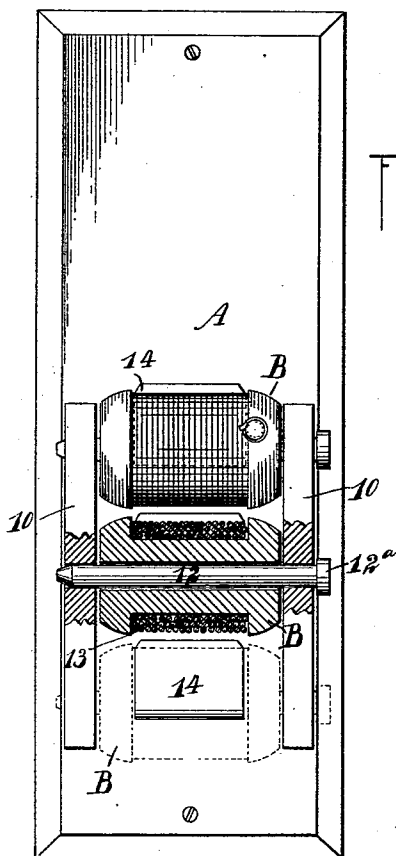


FIG 1

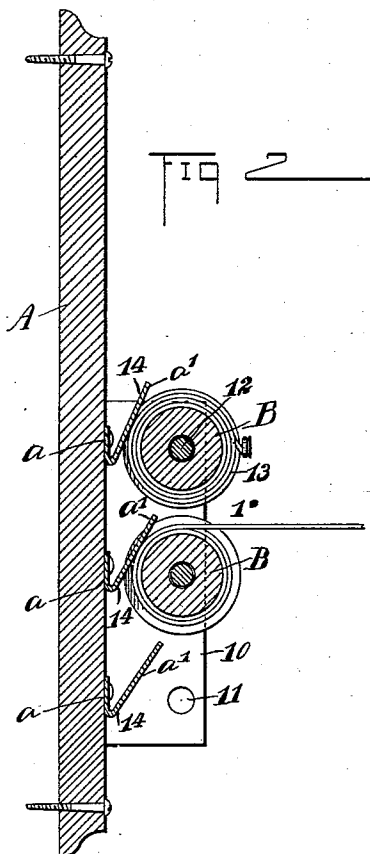


FIG 2

WITNESSES:
Geo. C. Cheney
John A. Ken

INVENTOR
R. Fraser
BY *Munn*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

RUSSELL FRASER, OF BROOKLYN, NEW YORK.

SPOOL-WIRE FRAME.

SPECIFICATION forming part of Letters Patent No. 563,154, dated June 30, 1896.

Application filed March 14, 1896. Serial No. 583,244. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL FRASER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Spool-Wire Frame, of which the following is a full, clear, and exact description.

The object of the invention is to provide a frame especially adapted for holding spools of wire, the frame being so constructed that the spools when full, or partially full, are held firmly in place, and whereby when the spools become empty they can be expeditiously and conveniently removed and full spools substituted.

A further object of the invention is to construct the spool-wire rack or frame in an exceedingly simple, durable, and economic manner.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

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

Figure 1 is a front elevation of the rack or frame, parts being broken away, and one of the spools being shown in section, another of the spools being shown in dotted lines; and Fig. 2 is a longitudinal vertical section through the device and likewise through the spools contained therein.

In carrying out the invention a back plate A is provided, having brackets 10 longitudinally secured therein, one near each side, and the space between the brackets is sufficient to loosely receive the spool B lengthwise. The brackets 10 have circular openings 11 made therein, said openings being longitudinally arranged, and are equally spaced and of equal number in each bracket, so that the holes in one bracket will be in horizontal alinement with corresponding holes in the opposing bracket. Each pair of holes is adapted to receive a pin 12, and the said pins pass loosely through the spools B, serving as spindles for the same. The pins or spindles 12 are preferably made tapering at one end, being provided with a knob or a handle 12^a at the opposite end.

The wire 13 is wound upon the spools in the

ordinary manner, and each spool may contain any desired number of layers of wire lying between the flanges of the spool. A spring-plate 14 is secured to the back board or plate A immediately opposite each space that is to be occupied by a spool. The plates 14 are of spring metal, and are of substantially angular construction, embracing a back or straight shank member *a*, which is secured to the back plate, and a longer tension member *a'*, adapted to have bearing upon the wire contained on the spool, and the width of the tension member of each spring-plate is substantially the same as the length of the space between the flanges of the spool, so that the spring or tension plates will bear upon the wire on a spool from one end of the coil to the other. The tension-plates are of such strength and are so located as to exert a rigid and continuous pressure against the surface of the wire, either when the spool is full, or partially full. This outward pressure against the wire is communicated to the spindles 12, and occasions a strong frictional engagement between the spindles and the walls of the bracket-openings in which the spindles are journaled, holding the spindles firmly in place as long as wire remains on the spool. When, however, the spool becomes empty, the diminished diameter of the spool causes all contact between the spool and the spring or tension plates provided for such spool to cease, and the spindle of the spool will become loose in its bearings and may be readily removed to take out the empty spool and introduce a full one.

This invention is applicable only to holding spools containing wire, because the necessary tension of the spring-plates 14 to hold the spindles in place causes a spool controlled by the said spring or tension plate to turn quite hard on the spindle, necessitating a strong metallic material to revolve the spool in drawing off its contents; and, furthermore, the strong contact of the spring-plate against the surface of the contents of the spool requires a smooth metallic surface to permit the spool to turn freely.

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

In a spool frame or rack for wire, the com-

5 bination of a back plate having brackets longitudinally secured thereto near each side thereof, each bracket having circular openings therein, said openings being in horizontal alignment, and adapted to receive spindles loosely passed therethrough on which are mounted spools wound with wire, and angular spring-plates consisting of a shank member secured to said back plate at the rear

of each spool and a longer tension member adapted to bear firmly against the wire on the spool, whereby a strong frictional engagement between said spindles and said openings is effected, as and for the purpose set forth.

RUSSELL FRASER.

Witnesses:

WM. S. RITCH,

D. J. STEPHENS.