

(No Model.)

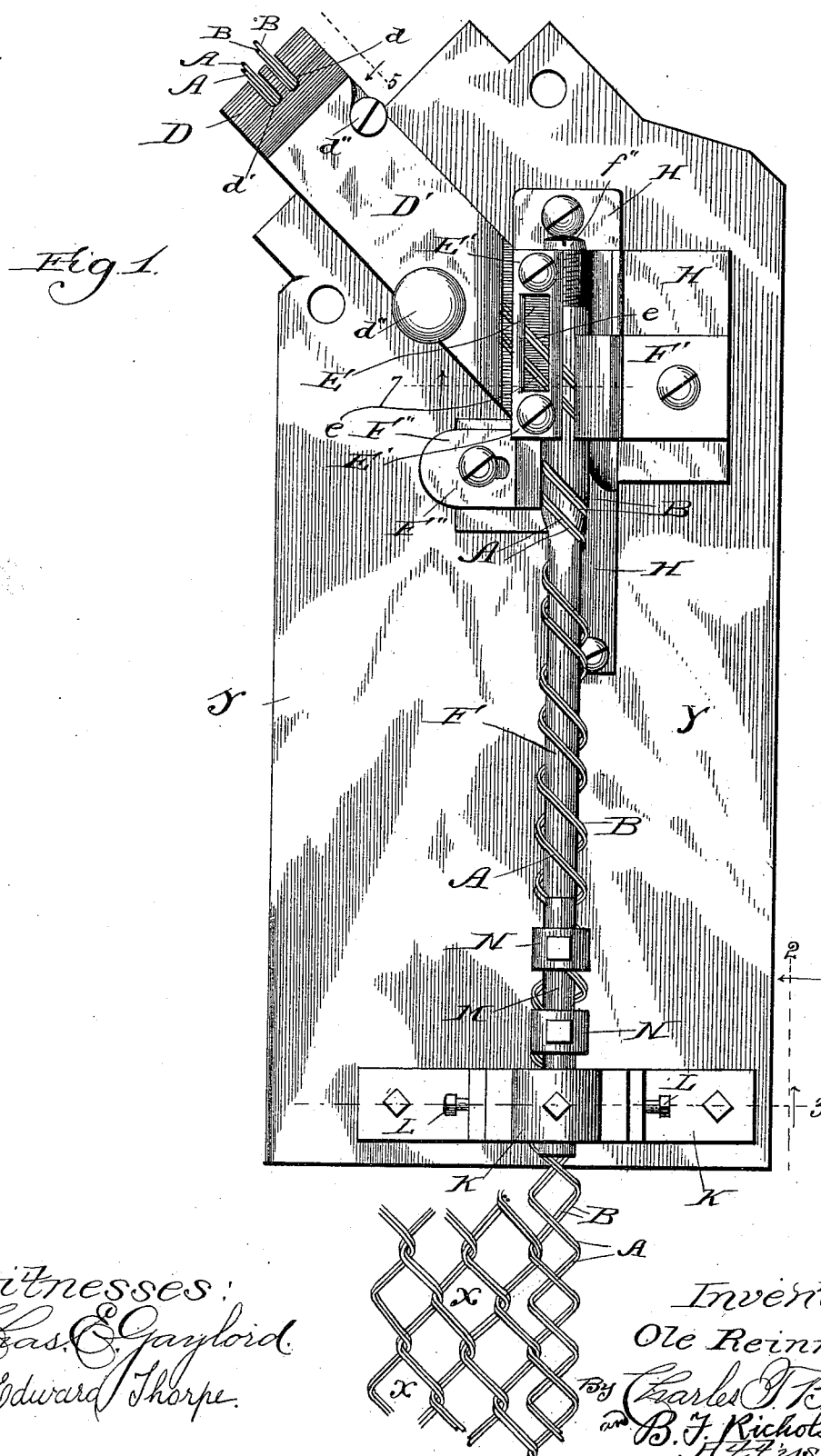
2 Sheets—Sheet 1.

O. REINNAN.

MACHINE FOR MANUFACTURING WIRE MATTRESSES.

No. 347,829.

Patented Aug. 24, 1886.



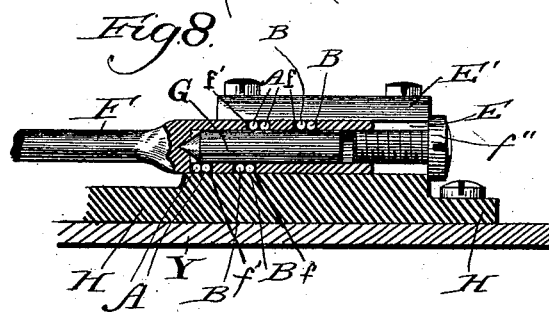
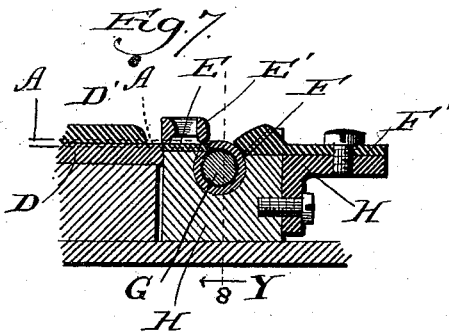
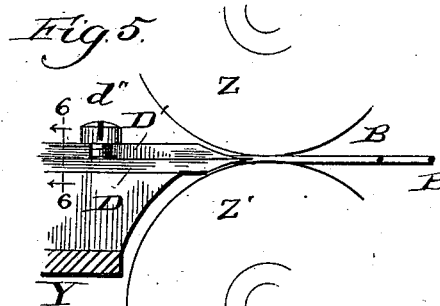
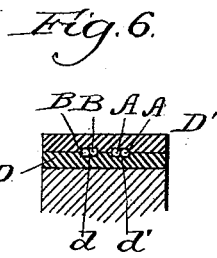
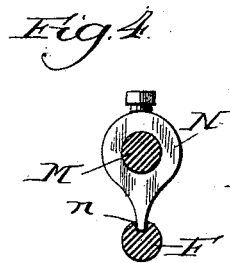
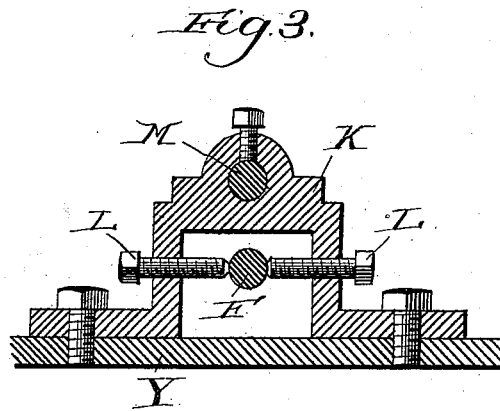
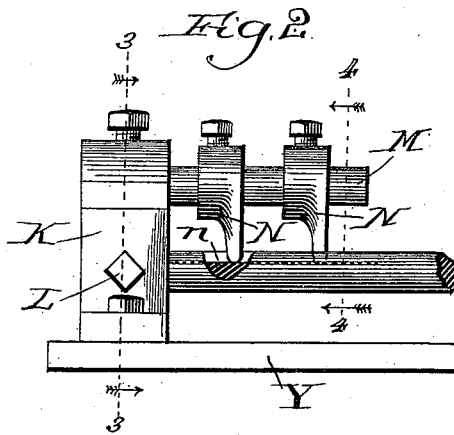
N. PETERS, Photo-Lithographer, Washington, D. C.

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MACHINE FOR MANUFACTURING WIRE MATTRESSES.

No. 347,829.

Patented Aug. 24, 1886.



Witnesses:
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UNITED STATES PATENT OFFICE.

OLE REINNAN, OF CHICAGO, ILLINOIS.

MACHINE FOR MANUFACTURING WIRE MATTRESSES.

SPECIFICATION forming part of Letters Patent No. 347,829, dated August 24, 1886.

Application filed May 20, 1886. Serial No. 202,705. (No model.)

To all whom it may concern:

Be it known that I, OLE REINNAN, a subject of the King of Norway and Sweden, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Manufacturing Wire Mattresses, of which the following is a full and complete description.

My invention relates to that class of machines designed to be used in the manufacture of ordinary wire of "spring-wire mattresses," so called, composed of interlocking spirally-twisted coils of wire; and the object of my invention is to produce a machine by which the coils forming the mattress may be easily and rapidly made, and guided to and interlocked or intermeshed with the coils previously made and constituting the partially-completed mattress.

I have illustrated my invention by the drawings accompanying this specification, and forming a part hereof, in which—

Figure 1 represents a plan view of the machine embodying my invention, and showing a portion of or a section of an incomplete partially-woven wire mattress. Fig. 2 is an elevation of a portion of the machine, indicated by lines 2 2 on Fig. 1. Fig. 3 is a cross-section on line 3 3 of Fig. 2. Fig. 4 is a cross-section on line 4 4 of Fig. 2. Fig. 5 is a cross-section on line 5 of Fig. 1. Fig. 6 is a cross-section on line 6 6 of Fig. 5. Fig. 7 is a cross-section on line 7 of Fig. 1. Fig. 8 is a cross-section on line 8 of Fig. 7.

Like letters refer to like parts throughout the several views.

X represents a section of a partially-woven mattress.

Y is the base-plate of my machine.

A A and B B are wires formed and shaped by the machine embodying my invention into coils interlocking and constituting the strands of mattress X.

Z Z', Fig. 5, are outlines of pulleys, between the peripheries of which wires A A and B B pass, and by which they are forced into and through my machine.

D D' are plates having grooves *d d'* therein.

Plate D is secured to base Y, and plate D' is adjustably secured to or over plate D by screws *d'' d''*. Wires A A and B B pass through

grooves *d d'* as they are forced into the machine by rollers or pulleys Z Z'.

E is a plate having grooves *e e* thereon, through which wires A A and B B pass immediately after leaving grooves *d d'*.

E' is a plate adjustably surmounting plate E.

F is a spindle or rod enlarged at one end, as illustrated in Fig. 8, and having grooves *f f'* passing diagonally around the enlarged end thereof and roll G placed therein.

f'' is an adjustable screw in rod F.

F' F'' are adjustable clamps. Rod or spindle F is held in proper position by clamps F' F'', screw *f''*, and set-screws L L, hereinafter described.

G is a roll placed in the enlarged hollow end of rod or spindle F, Fig. 8.

H is a sub-base-plate secured to base Y.

K is a frame secured to base-plate Y.

L L are set-screws in frame K, adjustably pressing against rod F.

M is a rod, also secured in frame K, and having adjustably placed thereon fingers N N, fitting into groove *n* on rod F.

F is stationary and does not revolve. It may be adjusted to any desired position by screw *f'*, clamps F' and F'', and set-screws L, and is retained in such position thereby, as heretofore stated.

The manner of operation of my improved machine is as follows: Strands of wire A A and B B are forced into grooves *d d'* by pulley or rollers Z Z through grooves *e e* in plate E, and into grooves *f f'* on rod or spindle F, and thence around said rod F. A spiral coil is thus made of each of wires A A and B B, as is illustrated in Fig. 1. Plate E' is adjusted to suitably press upon wires A A and B B as they pass through grooves *e e*. Roller G may turn with the wire thus passing around spindle or rod F in the grooves placed therein, and the sole purpose of roller G is to reduce the friction in said wires. Fingers N N are adjusted in such a manner as to properly retard coil B B, or advance coil A A, to cause said spiral coils to interlock as they move forward, in the manner illustrated in Fig. 1. Coil A A, interlocking with section X X of the partially-completed mattress, as the said coil moves forward, forms a portion of said mattress, and coil B B, interlocking, as described,

with coil A A, also forms a portion of said mattress. A double strand of said mattress X X is thus woven by my improved machine.

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

1. In a machine for manufacturing wire mattresses, the combination of a grooved guide or guides, through which the wire forming the mattress may be forced into the said machine, a fixed and stationary spindle or rod, having diagonal grooves at one end thereof, and fingers for separating the coils formed on said spindle at the other end thereof, all substantially as described, and for the purpose set forth.

2. In a machine for manufacturing wire mattresses, the combination of a grooved guide or guides, through which the wire forming the coils of said mattress may be forced into said machine, a fixed stationary spindle or rod having diagonal grooves at one end thereof, a roll placed within said spindle and underneath said diagonal grooves, and fingers for separating the coils formed at said spindle at the other end thereof, all substantially as described, and for the purpose set forth.

3. In a machine for manufacturing wire

mattresses, the combination of the adjustable grooved guide D D', adjustable plate E', diagonally-grooved stationary spindle F, and fingers N N, all substantially as described, and for the purpose set forth.

4. In a machine for the manufacture of wire mattresses, the combination of adjustable grooved guide D D', adjustable plate E', diagonally-grooved stationary spindle F, roll G in said spindle underneath said diagonal grooves, and adjustable fingers N N, all substantially as described, and for the purpose set forth.

5. In a machine for manufacturing wire mattresses, the combination of the adjustable guide D D', having grooves *d d'* therein, plate E, with grooves therein, with adjustable plate E' placed thereon, stationary spindle F, with diagonal grooves *f f'* around the same at one end thereof, and roll G, placed within said spindle and underneath said diagonal grooves *f f'*, and adjustable fingers N N and adjusting-screw *f''*, all substantially as described, and for the purpose set forth.

OLE REINNAN.

Witnesses:

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