No. 886,369. PATENTED MAY 5, 1908.

I. K. HOLLINGER.

FENCE STRETCHER.

APPLICATION FILED JAN. 9, 1908.

Fig. 1.

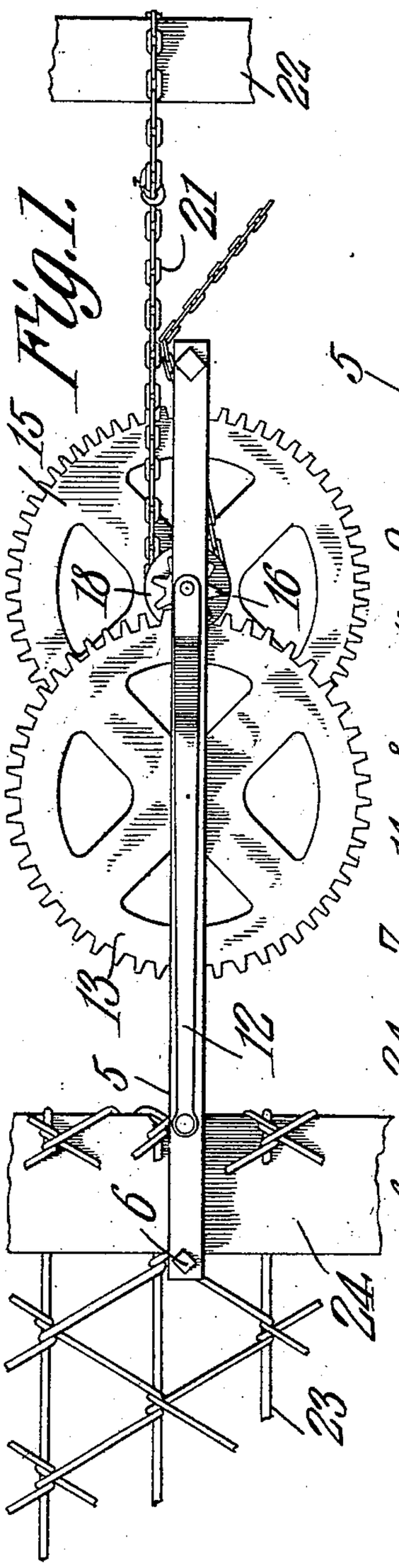


Fig. 2.

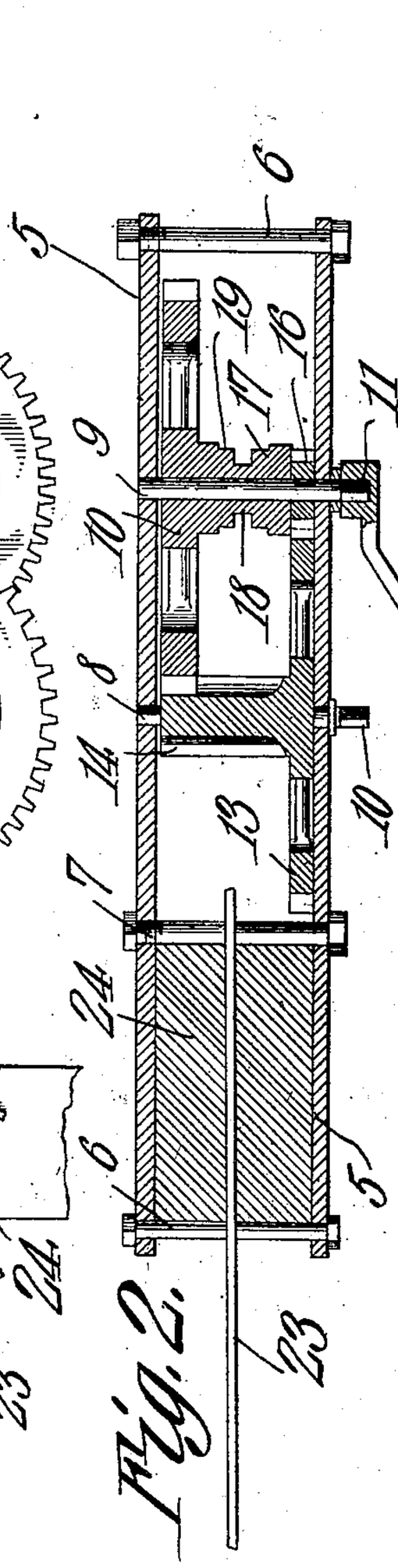
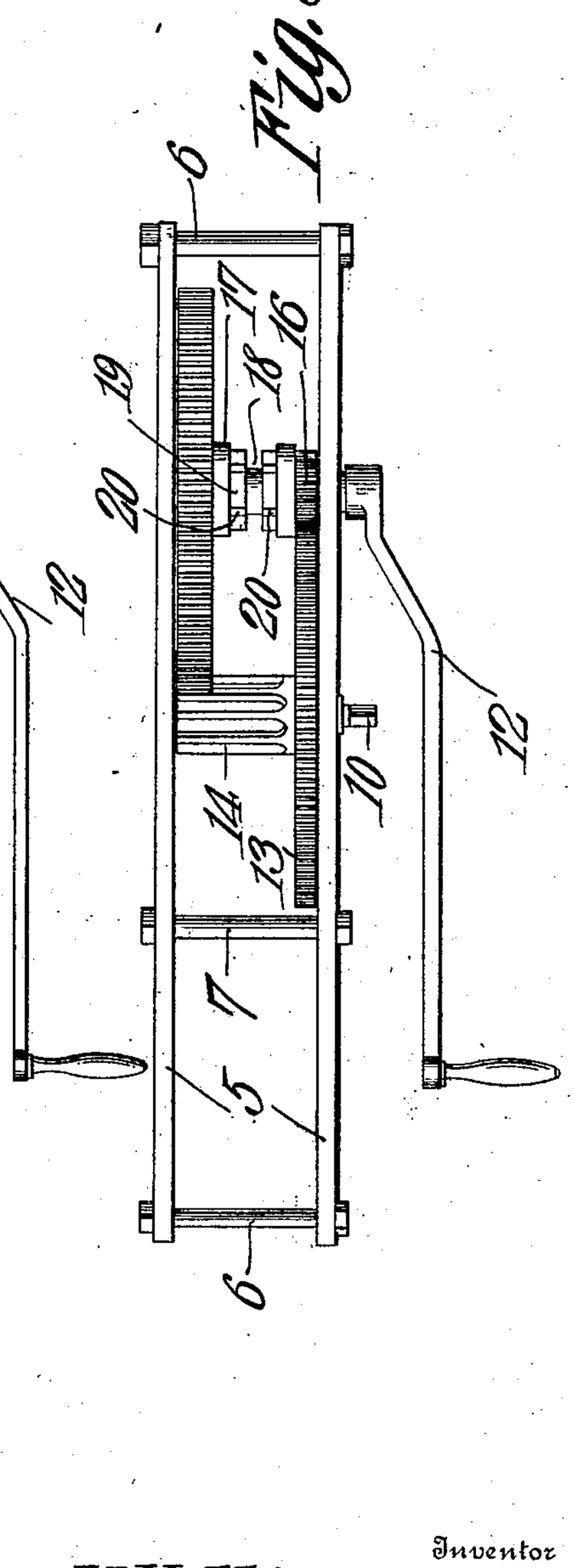


Fig. 3.



Witnesses

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FENCE-STRETCHER.

No. 886,369. Specification of Letters Patent. Patented May 5, 1908.

Application filed January 9, 1908. Serial No. 410,026.

To all whom it may concern:

Be it known that I, ISAAC K. HOLLINGER, a citizen of the United States, residing at Greenville, in the county of Darke and State of Ohio, have invented a new and useful Fence-Stretcher, of which the following is a specification.

This invention relates to wire stretchers and more particularly to that class of implement especially designed for stretching woven wire fencing.

The object of the invention is to provide a wire stretcher including a supporting frame having means for attachment at one end of the fencing and provided with a train of gearing connected through the medium of a chain or cable with a post or other suitable support so that by operating the gearing the tension of the wire fabric may be regulated at will.

A further object of the invention is to provide the operating shafts with terminal winding heads one of which is used for rotating the gearing to take up the slack in the fencing and the other to effect the stretching operation.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation of a wire stretcher constructed in accordance with my invention showing the same in position on a fence. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a top plan view.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved wire stretcher forming the subject matter of the present invention includes a substantially rectangular supporting frame preferably formed of metal and comprising spaced longitudinal bars 5 connected by terminal and intermediate bolts 6 and 7.

Journaled in the longitudinal side bars 5 are spaced transverse shafts 8 and 9 provided with terminal winding heads 10 and 11 for engagement with a suitable crank or handle 12.

Secured to and mounted for rotation with the shaft 8 is a driving gear 13 having an elongated pinion 14 cast or otherwise formed integral therewith and meshing with the teeth of a master gear 15 loosely mounted on the shaft 9, there being a pinion 16 fixed to the shaft 9 and meshing with the teeth on the driving gear 13, as shown.

Extending laterally from one side of the master gear 15 is a hub or drum 17 provided with an intermediate annular groove 18 defining spaced circumferential shoulders 19 on which are formed spaced teeth 20 for engagement with the links of a chain or other flexible medium 21.

One end of the chain 21 is wrapped around the drum 17 while the opposite end thereof is secured to a post or similar support 22 so that when either winding head is rotated the chain will engage the teeth on the drum and thus effect the stretching operation.

The stretcher may be employed for stretching any style of fencing and by way of illustration is shown in connection with a woven wire fabric fence 23 preferably of the diagonal mesh type as shown. One end of the fencing 23 is interposed between a pair of clamping bars 24 while the supporting frame is fastened in position on the bars 24 by means of the bolts 6 and 7.

In stretching a fence the supporting frame is placed in position with the longitudinal bars 5 of the frame embracing the clamping bars 24 and locked in engagement therewith by adjusting the clamping bolts 6 and 7 after which one end of the chain 21 is fastened around the post 22 and the opposite end thereof passed over the drum 17 and in engagement with the teeth 20. The crank 12 is then placed in position on the winding head 10 and the latter rotated to take up the slack in the wire, the chain 21 passing over the drum 17 and consequently shortening the distance between the clamping bars 24 and post 22, as will be readily understood. After the slack is removed the stretching operation is effected by positioning the crank 12 on the winding head 11 and rotating said head. As the pinion 16 is rotated the latter will grip the teeth on the driving gear 13 and through the medium of the pinion 14 rotate the master gear 15, in the manner before stated.

The wire stretchers may be made in different sizes and shapes and may be galvanized,

plated or otherwise coated to protect the same against the action of the elements.

Having thus described the invention what is claimed is:

1. A wire stretcher including a supporting frame, spaced shafts journaled in the frame and provided with terminal winding heads, a driving gear mounted for rotation on one of the shafts and provided with a pinion, a master gear mounted for rotation on the other shaft and engaging the teeth on the pinion, a second pinion mounted for rotation independently of the master gear and meshing with the teeth on the driving gear, and a connection between the master gear and a suitable support.

2. A stretcher including a supporting frame adapted to engage the wire to be stretched, spaced shafts journaled in said supporting frame and provided with terminal winding heads, a driving gear secured to and mounted for rotation with one of the shafts, a pitman secured to the driving gear a master gear loosely mounted on the other shaft and meshing with the teeth on the pinion, a drum secured to the master gear, a pinion interposed between the drum and adjacent wall of the supporting frame and meshing with the teeth on the driving gear, said pinion being mounted for rotation independently of the master gear, and a flexible medium connecting the drum with a suitable support.

3. A wire stretcher including a supporting frame having means for engagement with one end of the wire to be stretched, spaced shafts journaled in the frame and provided with terminal winding heads, a driving gear secured to and mounted for rotation with one of the shafts, a pinion mounted for rotation with the driving gear, a master gear loosely mounted for rotation on the other shaft and meshing with the teeth on the pinion, a drum secured to the master gear and provided with an intermediate groove defining circumferential shoulders having teeth formed thereon, a pinion mounted for rotation independently of the master gear and meshing with the teeth on the driving gear, and a chain having one end thereof secured to a support and its opposite end engaging the teeth on the drum.

4. A wire stretcher including a supporting frame comprising spaced longitudinal bars connected by transverse bolts, spaced shafts mounted for rotation in the longitudinal bars of the frame and each provided with an angular winding head, a master gear mounted for rotation with one of the shafts and provided with a pinion extending the entire width of the frame, a master gear loosely mounted for rotation on the other shaft and meshing with the teeth on the pinion, a drum secured to the master gear, a pinion interposed between the drum and the adjacent longitudinal bar of the frame, said pinion being mounted for rotation independently of the master gear and meshing with the teeth on the driving gear, a flexible medium forming a connection between the drum and a suitable support, and a handle having a squared socket adapted to engage the winding heads of the shafts for rotating the same.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ISAAC K. HOLLINGER.

Witnesses:
WM. J. NEFF,
PERRY SNOWDEN.