C. Danforth

5896X

Spinning Mach.

Patented Apr. 1, 1830.

Fig 1

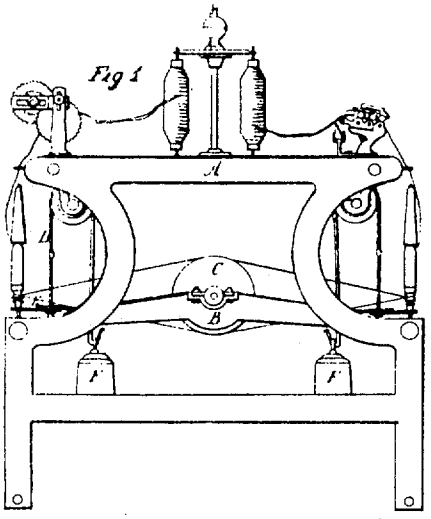



Fig 5

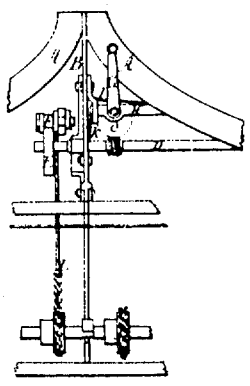


Fig 7

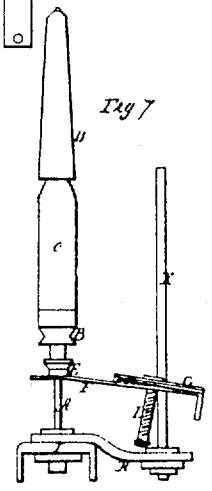


Fig 3

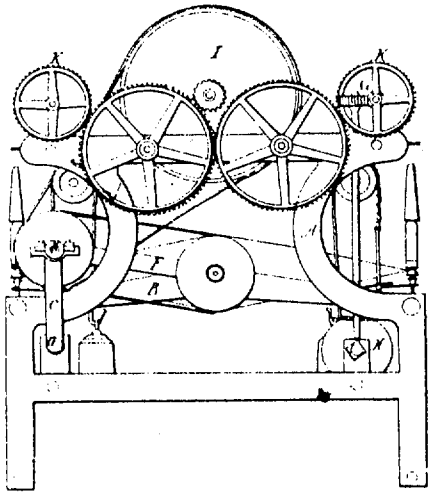
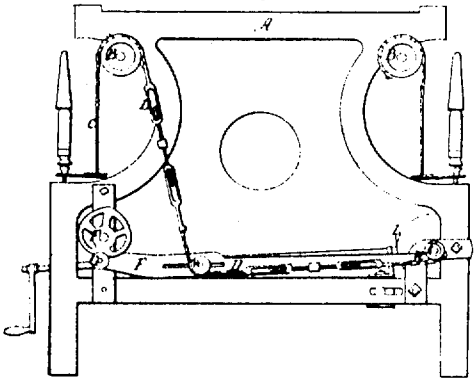



Fig 4




Inventor

No Printed Specification Available

Sheet 2, 2 Sheets

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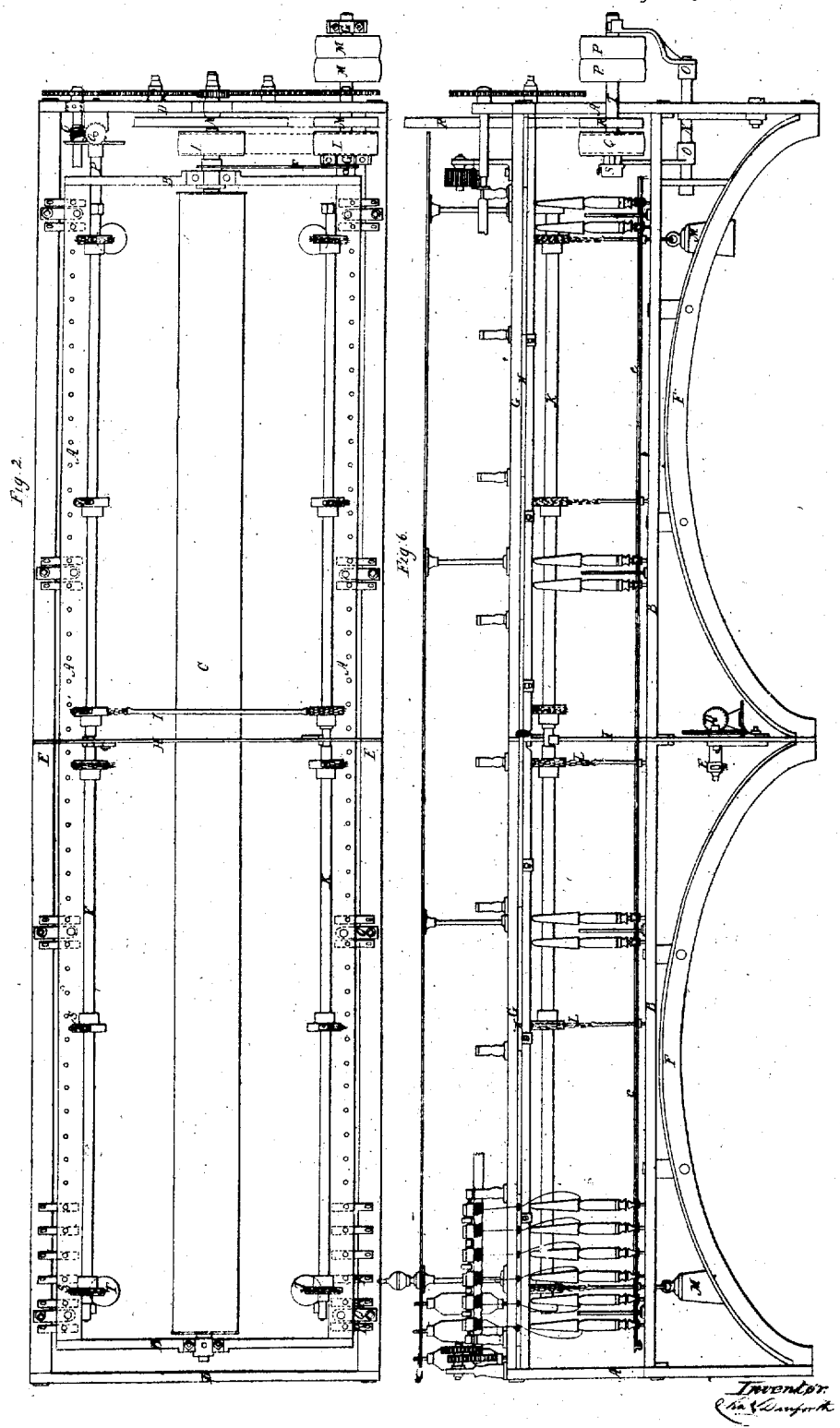


Fig. 2.

Fig. 6.

Inventor.
C. Danforth

April 1, 1828

Charles Danforth of Paterson, New Jersey

# Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Charles Danforth himself of his improvement in the Spinning machine, commonly known by the name of Danforths Patent Throstle.

To all whom these Presents shall come, Be it Known that I Charles Danforth of Paterson in the County of Essex and State of New Jersey have invented a new and useful improvement on a Spinning machine for Spinning Cotton commonly known by the name of Danforths Patent Throstle, for which Throstle I obtained Letters Patent September 3rd A.D. One Thousand Eight hundred and twenty eight, under the name of the Invincible Flyer, and that the following is a full and exact description of the said improvement as invented by me. It consists of an improvement by which the cylinder made use of for driving the rollers & Bobbins instead of revolving in fixed or stationary bearings is made to traverse with the traverse rails & rollers, whereby the tension of the band is kept the same when the rails are up in the centre and at the bottom. It also consists in dispensing or leaving the roller and Bobbin for the convenience of piecing or mending the broken ends or threads. This invention or improvement I call the traversing cylinder and drop bobbin. The cylinder is made to traverse by the same apparatus which gives motion to the rails instead of having the cylinder bearings fastened to the ends of the frame as is the case in the ordinary Throstle. There is a bar of cast iron running across the frame from one traverse rail to the other, the ends of this bar are bolted fast to a flange on the end of the traverse rails. There is a box of this kind at each end of the traverse rails, in the centre of which box the bearings for the journals of the cylinder are fixed so that as the rails rise and fall the cylinder rises and falls with them. The contrivance for causing or giving the cylinder its traverse motion is as follows, viz. There is a shaft or arbor (various sizes) made long enough to reach from the back of the front of the frame, a pinion made from the centre of the frame, and about two inches from the centre of the cylinder

when the cylinder and ends are in the centre of their pocket or when the bottom are half full. This shaft runs parallel with the cylinder to which shaft is firmly fixed two stands or arms in an upright position about two inches long and of a size sufficient to prevent the strength of the belt from straining them; at the top of these stands are fixed bearings for a counter or driving shaft. This shaft it will be seen runs parallel with the cylinder and is on a level with it when the cylinder as before stated is in the centre. on the end of this counter shaft are the fast and loose pulleys by which motion is communicated to the whole machines. and on the other is a pulley that gives motion to the cylinder by a belt running from the pulley round a pulley on the end of the cylinder. The rollers are turned by this same counter shaft by means of a belt or gearing. There is a connecting or flatman Rod, running from the cylinder journal to the journal of this counter shaft. having a hub on each end these hubs are perforated or drilled thro which the journal of the cylinder and the journal of the counter shaft passes. These hubs serve as a bearing for the cylinder journal at one end. and for a bearing for one end of the counter shaft. The inside surface of these hubs are turned and grooved out to suit a socket and cap box in the ends of the stands above written of. The use of this connecting or flatman rod is to steady the counter running shaft and to keep it always the same distance from the cylinder. so that the cylinder belt will be of the same tightness when the rails are up as when the rails are down. The appendages for dropping the warp and bobbins is as follows, Viz. The traverse rails instead of traversing on the spindle as having the spindle pass thro them (as is the case with the ordinary kind) are placed about three inches back of the spindle. The rails are made of cast iron about three inches wide, and about a quarter of an inch thick having a rib or stiffner on the backside about one inch deep. on the front is a rib about one sixteenth of an inch deep for the brass bearings of the bobbin to rest against. The bearings are made of rolled iron about three quarters of an inch wide and about one eighth of an inch in thickness. they are long enough to extend from the back rail or stiffner one inch and about half an inch in front of the spindle. they are fixed to the ends of the frame

and by means of a belt about three inches long and one quarter of an inch
in width, passing thro the front of the cavity under the bolt in a recess the arm
for of the lever made for the purpose. On this belt is a spiral spring made
of about number eighteen wire about one and half inch long. This spring
is regulated by a nut screwed on the bottom of said bolt. The use of this
spring is to keep the lever hard up against the lower side of the notch.
There is a slit made thro the front end of the lever thro which the spin-
dle and the wabers which run on the spindle rest on this lever and of
consequence traverse with the lever and notch. when run and breaks this
lever is forced down the spiral spring endeavoring when the end being thrown
the lever is let go. it resumes its place and the end is forced
The same effect of dropping the bobbin is done by means of a weight and
lever. That is done with a spring. What I claim as my invention is the
fastening of the cylinder with the notch and the dropping the bobbing.
for the convenience of penning in all and every mode whatsoever on the
above Throttle.

Witnesses
J M V[illegible] Minkle
J M Crimmond

Charles Danforth

Loyd.
1796

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