

(No Model.)

C. SCHNÜRCH.
APPARATUS FOR STEAMING SHAG.

No. 505,725.

Patented Sept. 26, 1893.

Fig. 1.

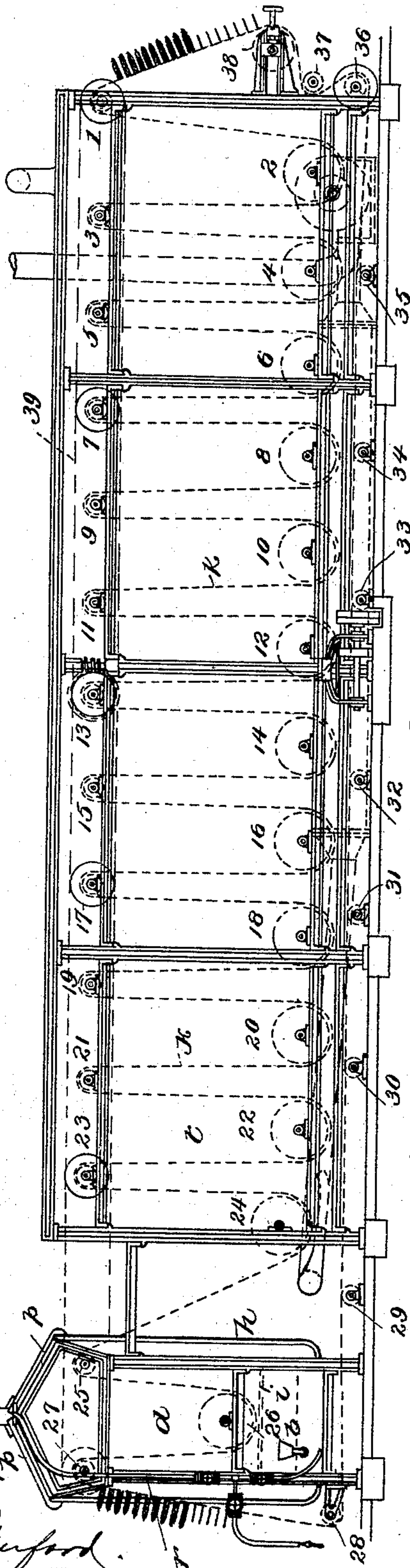


Fig. 2.

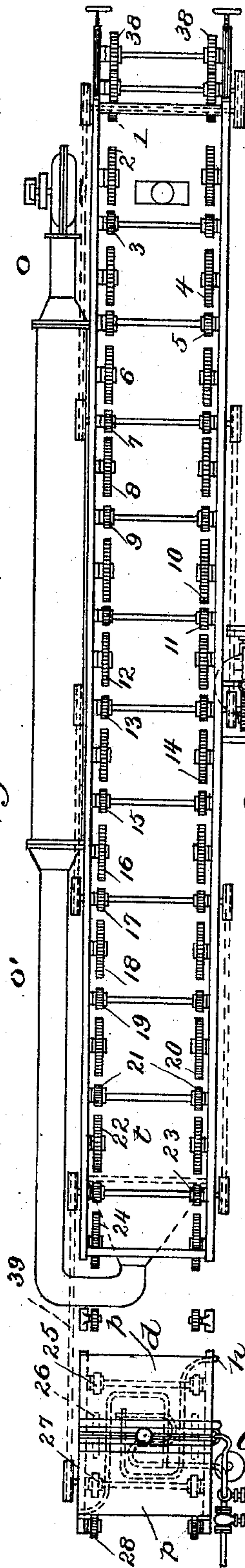
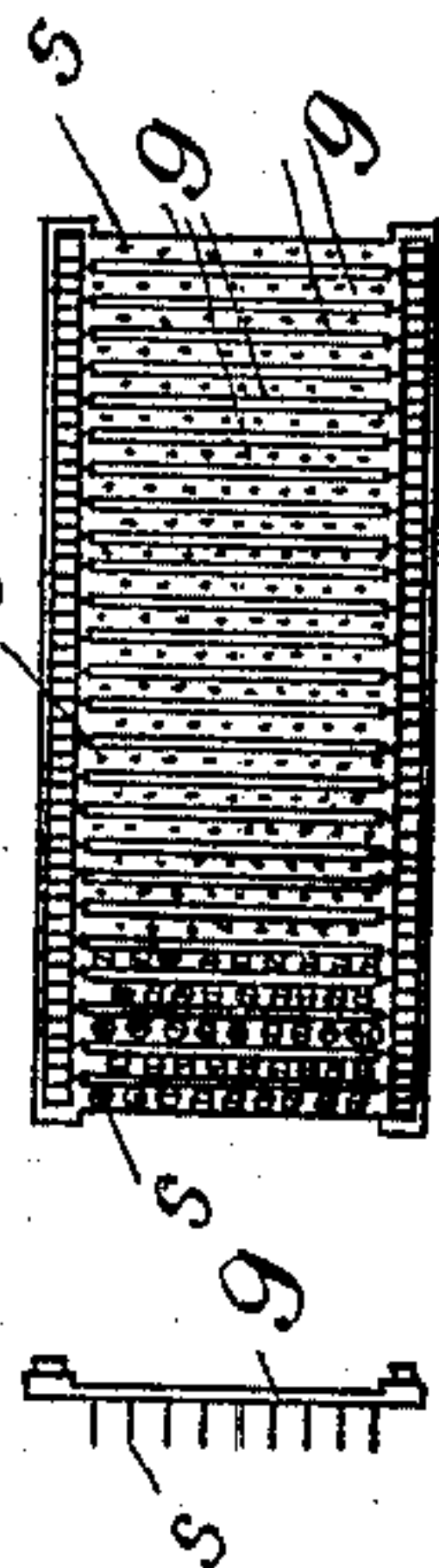


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CARL SCHNÜRCH, OF ALT CHEMNITZ, GERMANY.

APPARATUS FOR STEAMING SHAG.

SPECIFICATION forming part of Letters Patent No. 505,725, dated September 26, 1893.

Application filed May 11, 1892. Serial No. 432,588. (No model.)

To all whom it may concern:

Be it known that I, CARL SCHNÜRCH, chemist, a subject of the King of Saxony, Germany, residing at 11 Johannes Street, Alt Chemnitz, in the Kingdom of Saxony, Germany, have invented a certain new and useful Improved Process and Apparatus for Drying and Steaming Aniline-Black-Colored Cotton Shag; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved apparatus for steaming and drying cotton shag after it has been colored or printed, and it consists in the construction and combination of devices hereinafter described and claimed.

In the accompanying drawings—Figure 1 is a side elevation of my improved apparatus. Fig. 2 is a plan view thereof, and Fig. 3 is a detailed plan and transverse section of the endless carrier or chain-belt.

In the embodiment of my invention, I employ a suitably constructed drying room or structure *t* and an oxidation or steaming room or closure *d* arranged contiguously to each other.

k is an endless carrier or chain-belt, encompassing, tortuously upper and lower series of alternating cogged or chain wheels 1 to 24 arranged throughout the drying room *t*, and two upper wheels 25, 27 and an intermediate lower wheel 26, in the steaming or oxidation room *d*. This carrier or belt also encompasses two end rollers 28 and 36, and rests upon a series of rollers 29 to 35 arranged external of said steaming and drying rooms, said carrier passing from under rollers 37, over chain or cogged wheels 38 arranged at one end of said drying room and movably held in their bearings by screws *u*, to arrest the movement of said latter wheels.

The cross-bars or slats *g* of the carrier or chain-belt *k* are armed or furnished throughout the entire length of the belt with spindles *s* bearing the bobbins, cops or drums *c* carrying the cotton shag for drying and steaming.

In the lower part of the steaming or oxidation room *d* is a basin or vessel *b* having screen or sieve cover *i* and containing water, heated to the boiling point to generate the requisite steam for the oxidation or steam-

ing of the cotton-shag borne by the carrier or belt *k*, on its way through said room the waste steam escaping at *a* in the top of the room *d*.

The covering plates *p p* of the steaming or oxidation room *d* are heated by steam-pipes *r* arranged along the under side thereof and extending downward therefrom and connected to a supply steam-pipe *r* connecting with a suitable steam-generator or boiler (not shown) conveniently located.

The water contained in the vessel or basin *b* is heated by a spiral steam pipe *l* arranged therein and connected to the steam pipe *r*, while the exhaust steam from the latter pipe is conducted to the water in the basin or vessel *b* by pipes *h*.

A hot air-blast is forced into the drying room or chamber to effect the drying of the cotton shag by the action of a blast fan or blower *o* through the pipe *o'* having a flared outer end facing the delivery end of said chamber or room.

Belts 39 arranged alternately upon opposite sides of the drying room and upon one side of the steaming room, encompass pulleys upon shafts of certain of the upper series of wheels, and a pulley upon the shaft of the wheels 27, and a shaft having a screw and gear connection *u* with the shaft *e*, Fig. 2 carrying the wheels 33, in conjunction with a suitable motor-power, communicates movement to said belts, which in turn, drive the endless carrier *k*.

Having described my invention, what I claim is—

The combination with a steaming room and a drying room, each having alternating series of upper and lower wheels or rolls arranged therein, of an endless carrier or belt extended alternately above and below said wheels and having cross bars or slats provided with spindles for carrying the bobbins or cops on which the cotton shag is placed, and means for driving said belt continuously to carry the cotton shag through the steaming room and drying room at one operation, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CARL SCHNÜRCH.

Witnesses:

CARL FR. HEICHETT,
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