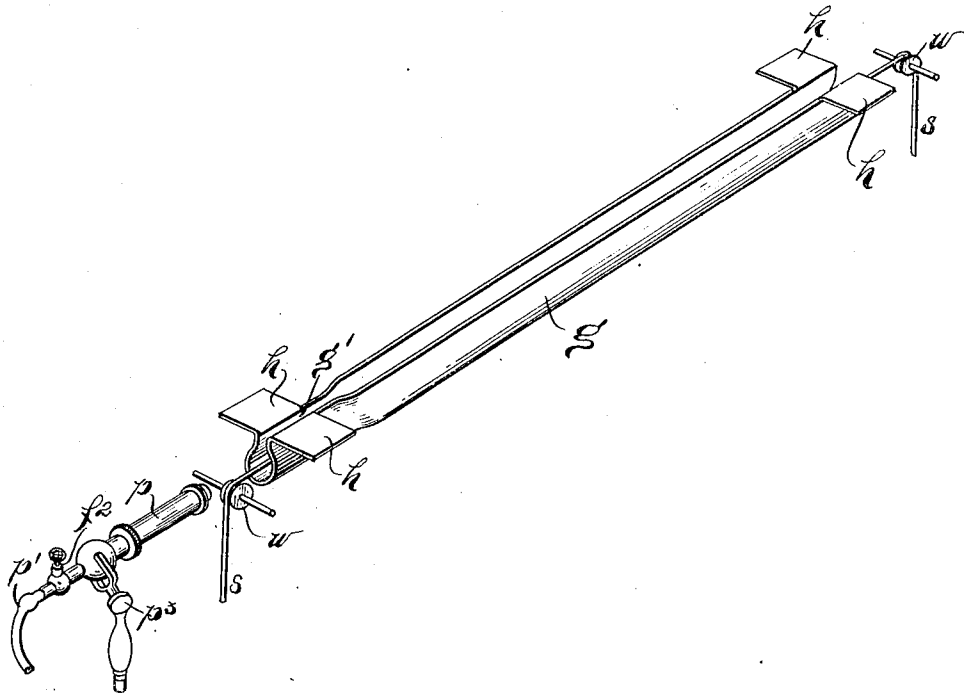
G. GIN & V. COURTECUISSE.

ELECTRIC PROCESS FOR GASSING THREADS.

APPLICATION FILED SEPT. 11, 1907.

918,439. Patented Apr. 13, 1909.



Witnesses:
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George G. Measures.

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UNITED STATES PATENT OFFICE.

GUSTAVE GIN, OF PARIS, AND VICTOR COURTECUISSE, OF LILLE, FRANCE; SAID COURTECUISSE ASSIGNOR TO SAID GIN.

ELECTRIC PROCESS FOR GASSING THREADS.

No. 918,439. Specification of Letters Patent. Patented April 13, 1909.

Original application filed March 22, 1907, Serial No. 363,870. Divided and this application filed September 11, 1907. Serial No. 392,320½.

To all whom it may concern:

Be it known that we, GUSTAVE GIN, of Paris, France, and VICTOR COURTECUISSE, of Lille, France, both citizens of the Republic of France, have invented certain new and useful Improvements in Electric Processes for Gassing Threads, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawing, showing an elevation of parts of an apparatus by aid of which our said process may be applied.

Our novel process consists broadly in singeing undesired fibrils projecting from threads, as of cotton or wool more particularly, by heat radiated from metal electrically heated while subjected to a blast containing oxygen.

Referring to the drawing *g* represents a longitudinally extended tubular, or trough-like, electro-conductive member composed of comparatively infusible metal such as platinum. This member is upheld in desired disposition by any convenient supports, not shown, and is connected suitably with a source of electrical energy, not shown so that a current may be passed therethrough to heat said member as desired, *s* is the thread supported, tensioned, and propelled on reels diagrammatically indicated at *w*, *w*, and rotatively supported by any convenient means, not shown, to insure substantial alinement of the thread with the central longitudinal axis of said member. A blower apparatus is provided comprising a blow pipe nozzle *p*, having connection p' with an air compressor, not shown, valve p^2 and means p^3 for movably supporting said nozzle. The member *g* is constricted, or reduced in section at g' proximately to the point at which the jet of air from said nozzle is injected into said member. This formation insures, as per Joule's law, a higher temperature in member *g* at its said point of constriction, thus compensating for the cooling effect of the jet.

Our process is worked as follows: The current being turned on, member *g* becomes heated to the required temperature and the heat radiated therefrom singes the tendrils of the thread which is simultaneously propelled through said member by rotation of the reels. The singeing, however, in many cases, particularly where woolen threads are involved, cannot be sufficiently perfectly effected because of lack of oxygen, the valve p^2 is in such cases opened to the extent required and the nozzle *p* disposed and adjusted to inject into the heated member *g* and proximately to the thread, a blast of air, or other gas containing oxygen. The presence of the extra supply of oxygen thus afforded enables the singeing to be completely and perfectly accomplished. The blast also simultaneously expels from the tubular member undesirable products of combustion of the fibrils.

It will be understood that we do not confine ourselves to the particular apparatus shown for the purpose of practicing our process which consists broadly in singeing off the undesired fibrils by proximity to electrically heated surfaces, in the presence of more oxygen than is supplied by the surrounding atmosphere under normal conditions.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. The process of gassing threads which comprises singeing them by proximity to electrically heated surfaces in presence of more oxygen than is supplied under normal atmospheric pressures.

2. The process of gassing threads which comprises singeing them by proximity to electrically heated surfaces and simultaneously subjecting said surfaces and thread to an air blast.

In testimony whereof, we have hereunto set our hands in presence of two witnesses.

GUSTAVE GIN.
VICTOR COURTECUISSE.

Witnesses as to Gustave Gin:
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