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APPARATUS FOR AND METHOD OF MANUFACTURING MOUNTED GOLD LEAF.

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1,334,947. Patented Mar. 30, 1920.

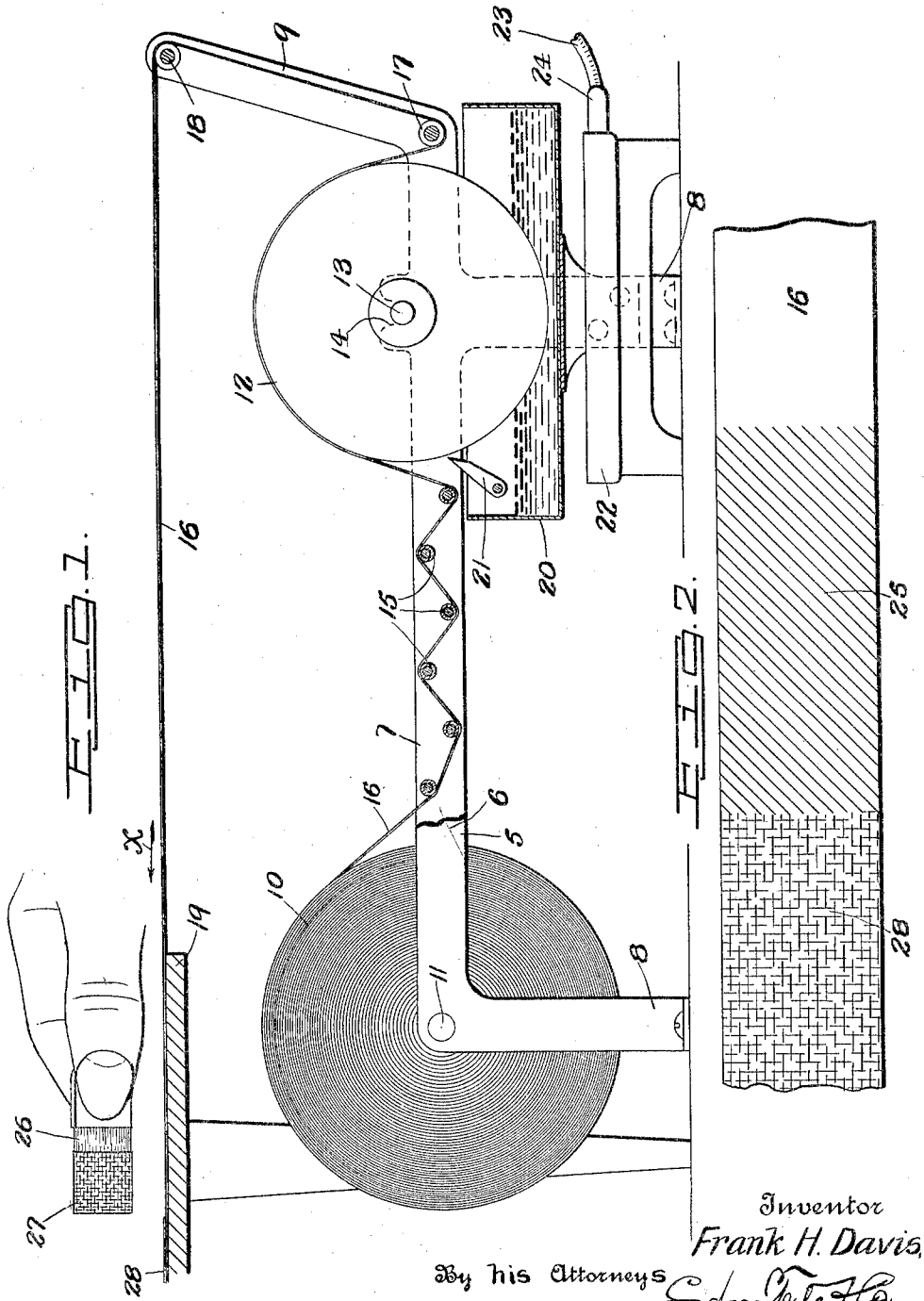


FIG. 1.

FIG. 2.

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR AND METHOD OF MANUFACTURING MOUNTED GOLD-LEAF.

1,334,947. Specification of Letters Patent. Patented Mar. 30, 1920.

Application filed February 4, 1919. Serial No. 274,857.

To all whom it may concern:

Be it known that I, FRANK H. DAVIS, a citizen of the United States, and residing at New York, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Apparatus for and Methods of Manufacturing Mounted Gold-Leaf, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to apparatus for use in manufacturing what is known as mounted gold leaf and particularly to articles of this class such as is shown in a patent granted to Davis and Schumacher, Jan. 12, 1915, No. 1,124,869; and the object of the invention is to provide a simple and economical apparatus of the class and for the purpose specified which will apply an adherent or fusible adherent to one face of a strip or sheet of paper passed through the apparatus prior to the attachment of the gold leaf to said face of the strip or sheet of paper. A further object of the invention is to provide the apparatus with means for evenly applying the adherent material or substance to the face of the strip as well as to completely cover such face with the adherent material; and a still further object of the invention consists in the continuous method employed of manufacturing what is known as mounted gold leaf; and with these and other objects in view the invention consists of an apparatus of the class and for the purpose specified, constructed and operating as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a diagrammatic side and sectional view of my improved apparatus and indicating the method of its use; and

Fig. 2 a plan view of a part of a paper strip which I employ showing the adherent or fusible adherent applied to one face thereof and the gold leaf applied to the adherent on said face.

In Fig. 1 of the drawing I have indicated at 5 a supporting frame which consists of parallel side members 6 and 7, the opposite end portions of which are provided with downwardly directed supporting legs 8 adjacent to one pair of which the side members 6 and 7 of the frame are provided with outwardly and upwardly directed extensions 9.

A spool or roll 10 of strip or tape-like paper is mounted on a shaft 11 between the side members 6 and 7 of the main frame 5 and in one end portion of said side members, while a roller 12 having oppositely directed trunnions 13, one of which is shown in Fig. 1, is rotatably mounted in upwardly directed recesses 14 at the top of the side members 6 and 7 of the frame adjacent to the other end portion thereof.

A plurality of anti-friction rollers 15 are mounted between the side members 6 and 7 of the frame between the roll 10 of paper and the roller 12 and over and around which a strip or sheet 16 of paper from the roll 10 passes in the manner shown in Fig. 1 of the drawing, after which said paper passes over the upper face of the roller 12 and downwardly around an anti-friction roller 17 between the extensions 9 of the side members 6 and 7 of the frame, and then upwardly around another anti-friction roller 18 in the free end portions of said extensions 9. The strip 16 of paper then passes over the roller 12 and the roll of paper 10 onto a bench, table or other support 19.

A suitable pan or container 20 is mounted between the side members 6 and 7 of the frame, or the legs 8 thereof, and beneath the roller 12. This pan serving to contain the adherent or fusible adherent which is to be applied to one face of the strip 16 of paper from the roll 10 in the operation of the apparatus. An adjustable blade or gage device 21 is mounted in one end portion of the pan 20 and operates in connection with the face of the roller 12 and serves to regulate the amount or thickness of the adherent

to be carried by the roller 12 onto the face of the strip 16 of paper.

The adherent in the pan 20 is kept heated to a predetermined temperature, preferably by an electric stove or heater device 22 which is placed beneath the pan 20 and placed in connection with any suitable sort of electrical supply through a wire cord 23 having the usual plug connection 24 at one end thereof.

In the use of my improved apparatus a roll of paper is first placed in position and threaded through the apparatus as shown in Fig. 1, and the pan 20 is filled, or partially filled, with a suitable adherent or fusible adherent similar to substances of this class that are known and used in the art of mounting gold leaf, or similar to the substance described and claimed in a companion application filed of equal date herewith, the substance employed being kept in a heated state by the heater 22, after which the free end of the strip 16 of paper from the roll 10 is passed on over the table 19 and moved in the direction of the arrow x, Fig. 1, by hand, or by any suitable feeding device, and when that part of the strip to which the adherent has been applied as is shown at 25 in Fig. 2 of the drawing passes over the table 19 an operator by the use of a suitable brush or other device 26 applies a section or portion 27 of gold leaf to the adherent on the face of the strip 16 as shown at 28. The above operation continues until all of the paper on the roll 10 has been consumed or gold leaf applied thereto in the manner above set out, after which another roll of paper may be inserted and the above operation repeated.

Heretofore it has been customary to apply the adherent to one face of a strip of paper by the use of a brush but this method of procedure was very unsatisfactory and unreliable in that an even coating of the substance could not be applied without great skill in workmanship, and would thus leave streaks or uncoated portions on the face of the strip, but as will be readily seen with my apparatus an even distribution of the adherent substance is applied to the face of the paper strip, and the entire surface of the face is completely covered thus avoiding all of the difficulty heretofore experienced.

While I have stated above that the pan or container 20 is filled, or partially filled with an adherent or fusible adherent substance, it will be understood that a size or sizing may also be placed in said container and after the strip of paper of predetermined length with the gold leaf attached thereto as shown at 28 in Fig. 2 of the drawing has been allowed to dry, said strip may be rolled up to form a roll of mounted gold leaf, which may be placed in or mounted in the frame 5 of the apparatus and passed through the machine in the same manner as the passage of the strip 16 of paper, as hereinbefore described, but instead of applying an adherent or fusible adherent to the strip 16, as shown at 25 in Fig. 2, a size or sizing substance of any kind or class and which may be the same as that now employed in the manner of mounted gold leaf is applied to the gold leaf mounted on or secured to the strip 16 as shown at 28, as hereinbefore described, after which the strip is drawn through the apparatus and allowed to dry in the usual manner.

From the foregoing it will be noted that my invention consists not only in apparatus for applying an adherent or fusible adherent to a face of a strip of paper as well as a size or sizing, but also in the method of handling the strip or applying the adherent and sizing substances thereto, as well as the gold leaf, and this method of operation is by far simpler than the present method employed in the manufacture of mounted gold leaf as well as a more efficient method in that a more perfect roll is produced in a quick and easy manner, and while I have shown a specific apparatus for carrying my method into effect, it will be understood that changes therein and modifications thereof may be made, within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

The anti-friction rollers 15 between the roll of paper 10 and roller 12 serve as tension rollers as well as straightening rollers which will keep the strip of paper in proper position and under tension prior to its passing over the roller 12.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The herein described method of manufacturing mounted gold leaf which consists in passing a strip of paper through an apparatus which automatically applies an adherent substance to one face of said strip, intermittently applying sections of gold leaf to the face of the strip upon which the adherent substance is applied and then allowing said strip with the gold leaf attached thereto by said adherent to dry.

2. In an apparatus of the class described, a frame, a table or support at one end of said frame, means for supporting a roll of paper in one end portion of the frame, a roller rotatably mounted in the other end portion of the frame and over the face of which a strip of paper from said roll is adapted to pass, means for supplying the face of said roller with an adherent substance whereby in the rotation of said roller said adherent substance is applied to one face of said strip of paper, and said strip of paper being adapted to be passed over said

table or support with the face to which the adherent substance is applied directed upwardly whereby sections of gold leaf may be applied to the upwardly directed face of said strip as it passes over said table.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 3rd day of February, 1919.

FRANK H. DAVIS.

Witnesses:
C. E. MULREANY,
H. E. THOMPSON.