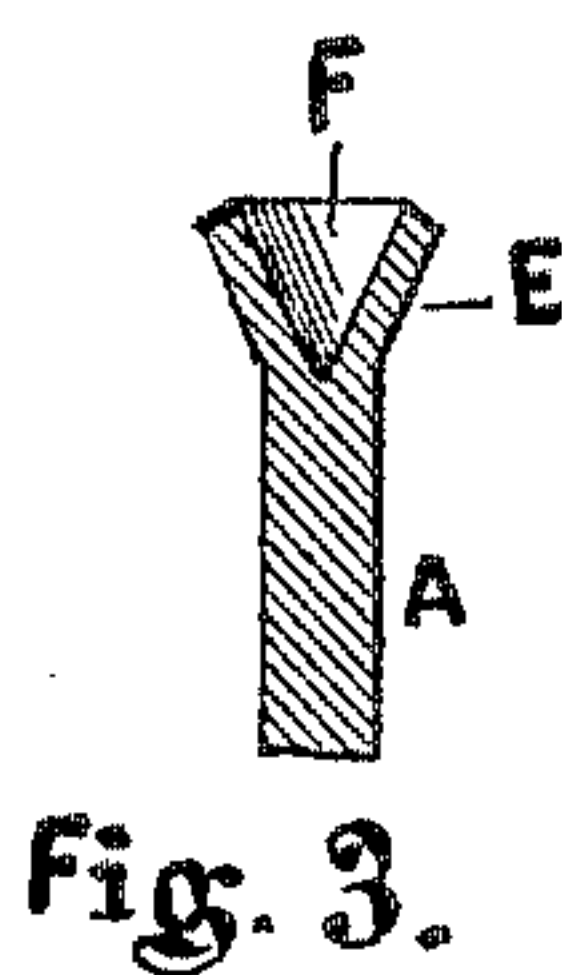
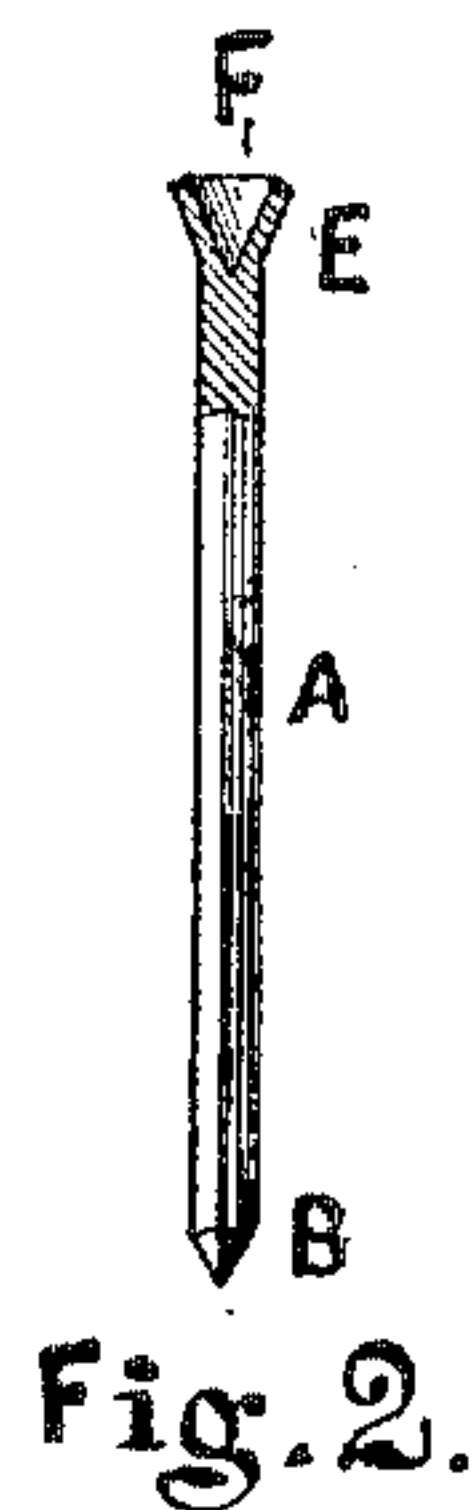


No. 797,494.

PATENTED AUG. 15, 1905.

A. J. CHASE.
WIRE FINISH NAIL.
APPLICATION FILED AUG. 29, 1904.



WITNESSES.

Edgar E. Bean

H. Aubrey Harvey

INVENTOR.

Andrew J. Chase,

By Sylvanus Walker,
Attorney.

UNITED STATES PATENT OFFICE.

ANDREW J. CHASE, OF MELROSE, MASSACHUSETTS.

WIRE FINISH-NAIL.

No. 797,494.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed August 29, 1904. Serial No. 222,672.

To all whom it may concern:

Be it known that I, ANDREW J. CHASE, a citizen of the United States, residing at Melrose, in the county of Middlesex and State of Massachusetts, have invented a new and useful Wire Finish-Nail, of which the following is a specification.

My invention relates to improvements in wire finish-nails, usually employed in securing in position hardwood finish in the interior or rooms of first-class dwelling-houses, stores, saloons, and similar apartments provided with highly-finished door and window casings and other hardwood fixtures and finish, as heretofore employed for the purpose. Now in order to secure such finish and devices in position on the walls as desired it has been a difficult undertaking for painters, stainers, and varnishers to cover over and obliterate the bad rough holes formed in such hardwood finish on account of the heads of the nails employed for the purpose, it being necessary to drive the heads into such finish below the outer surface of the same by means of a nail-set, which frequently slips from the heads of such nails, which have heretofore been formed by upsetting a portion of the end of the wire or metal, thus forming a shoulder at the point where the head joins the shank portion of the nail. It must be evident that such formed nail-heads when driven into such finish below the surface tend to break and bend inwardly the adjacent fibers of the wood, thus causing a bad large rough hole surrounding such formed heads to be filled up with putty, cement, or other suitable material.

It is well known that in making nail-heads by upsetting a portion of the end of the wire or metal causes the fiber of the same to become somewhat crystalline at the point where it joins the shank portion of the nail, thus rendering the same weak and defective at the point where the greater strength is required in order to hold firmly when driven into the material, as above described.

I fully overcome and avoid the defects and objections above stated by the construction of a finish-nail, as hereinafter fully described, and shown in the accompanying drawings, which form a part of this specification.

Figure 1 represents a side elevation of a wire finish-nail constructed according to my invention, showing a conic head. Fig. 2 represents a vertical sectional elevation showing a conical cavity formed in the head of a finish-nail according to my invention. Fig. 3 rep-

resents a vertical section of the head of a finish-nail constructed to embody my invention, drawn on an enlarged scale.

In producing the finish-nails I employ a wire of the proper gage to form the shank of the nail, round in cross-section. Then by means of suitable dies or other mechanical means heretofore employed for the purpose a blank is cut off the desired length and one end pointed, as heretofore. Then the opposite end of this shank portion has a conical cavity centrally formed therein by means of a sharp-pointed cone-shaped steel die, which forces the fiber of the drawn wire outwardly from the center or axis of the same equally upon all sides, thereby forming the exterior conic head of laterally-bent fiber of metal, making a shell-head of nearly uniform thickness throughout.

It will be seen that by forcing outward the metal from the center in forming the conical cavity in the head leaves the annular portion or outer corner surrounding the cavity on an incline outwardly or downward, as desired, to facilitate the return of fibers to their normal positions when this form of finish-nail head is driven below the surface of the hardwood object when in actual use. A finish-nail of this configuration can be easily and cheaply made of tough tenacious round wire. A represents the shank portion provided with a point B at one end, as heretofore. The opposite end is formed on the exterior surface E, cone-shaped or conic, by means of the conical cavity F, which is formed by forcing and bending the fiber of the wire outwardly to contact with suitable-shaped dies adapted for the purpose, so as to form a conic head having a conical cavity formed therein to receive the end of a nail-set, the latter being thereby prevented from slipping from the head of the finish-nail when being driven below the surface of a wooden object.

I am aware of the fact that nails and spikes of various forms have been heretofore made with cavities in the heads thereof and do not broadly claim such construction as my invention.

Now it will be seen and understood that when a finish-nail head of my invention is being driven into a hardwood finish below the surface thereof the exterior conic surface of the head in contact with the fibers of the wood will force the same gradually apart as the head of the nail enters the hardwood finish without breaking and bending the wood fibers inwardly, which will thus be left free to resume

somewhat their normal positions above the head or incline-outward corner thereof, and thereby save a great amount of time, labor, and materials and also make a better and more desirable finish than possible with the state of the art as now in use when the common wire nails are employed for the purpose.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

As a new article of manufacture, a wire fin-

ish-nail having a frusto-conical head provided with a conical cavity, the outer wall of the head being at a steep incline to the shank of the nail and the annular rim of said head having the face thereof at an angle to the outer wall of the head.

ANDREW J. CHASE.

Witnesses:

SYLVENUS WALKER,
J. W. SPAULDING.