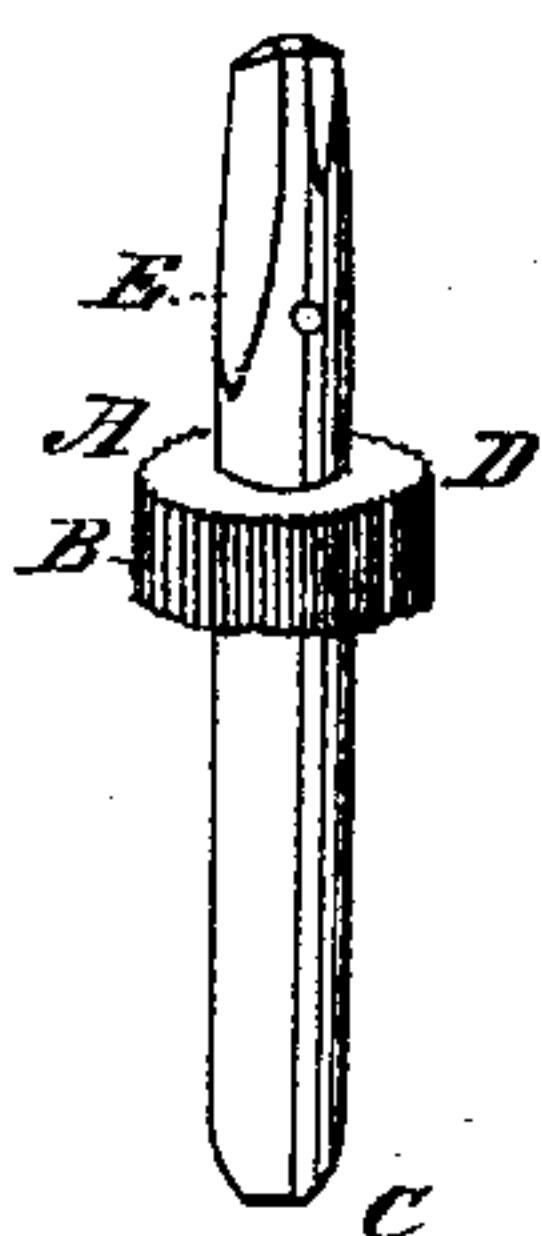
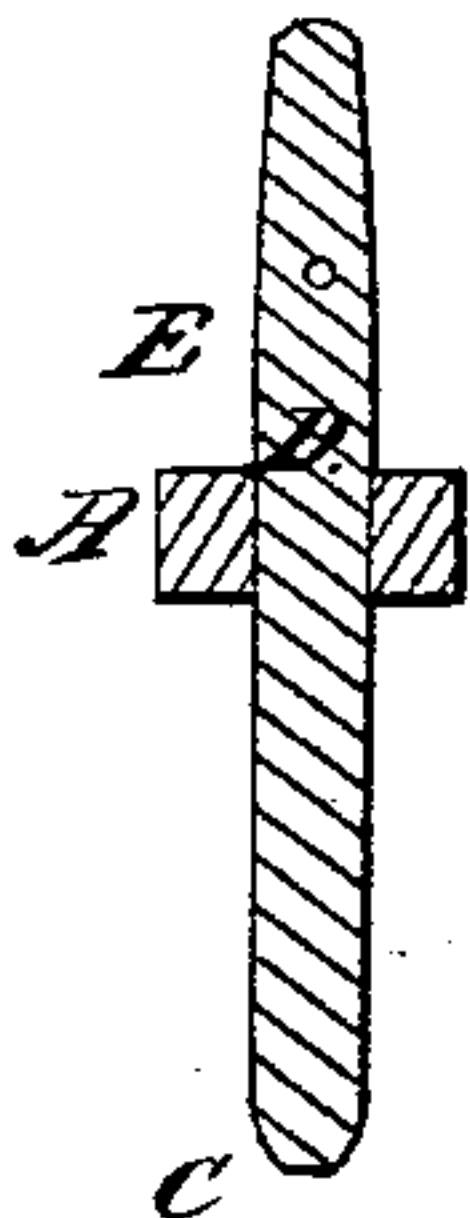


*S. Clark,*  
*Tuning Pin,*  
*No 31,589,* *Patented Mar. 5, 1861.*

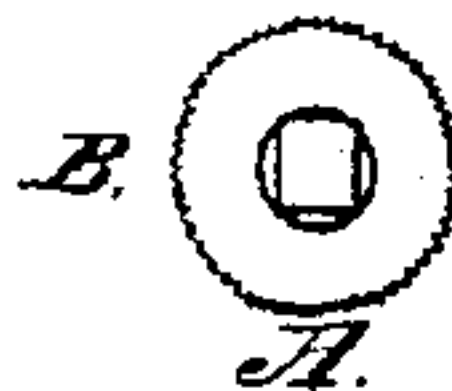
*Fig. 1*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*

*Wm. Lee*  
*Wm. Harrington*

*Inventor:*

*Samuel Clark*

# UNITED STATES PATENT OFFICE.

SAMUEL CLARKE, OF NEW YORK, N. Y.

## IMPROVEMENT IN TUNING-PINS FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. 31,589, dated March 5, 1861.

*To all whom it may concern:*

Be it known that I, SAMUEL CLARKE, of the city and State of New York, have invented a new and Improved Tuning-Pin for Stringed Musical Instruments; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 shows a perspective view; Fig. 2, a vertical section; Fig. 3, a plan.

The nature of the invention consists in so constructing the pin as to increase its power of resistance to the recoiling strain of the spring, and thereby to keep the instrument longer in tune.

Letters E show the part of the pin upon which is wound the end of the string which it is intended to tune.

From letters C to letters D is the part of the pin which enters the wrest-plank, or the part of the instrument intended for its reception, and which by adhesiveness to its bearings prevents the pin from recoiling when the string is tightened upon it at letter E. This part of the pin from letters C to letters D is made either wholly or in part of a larger diameter than at letter E, as shown at letter

A, whereby an increased leverage is obtained to resist the recoiling strain of the string, and an increased surface to resist the pressure of the pin, and to still further increase the resisting-power of the pin to the recoiling strain of the string the periphery of the enlarged diameter, letter A, is roughened or corrugated as shown at letters B.

I construct the pin in two parts, either by casting the enlarged diameter, letters A, upon the shafts, or by drilling or punching it and then driving it tightly upon the same.

The principle of action of the construction is that the enlarged diameter of the pin, as shown at letters A, by its increased leverage and roughened periphery gives greater power to resist the recoiling strain of the string, and also its increased surface a more durable bearing against its abutment.

What I claim as my invention, and desire to secure by Letters Patent, is—

A tuning-pin for stringed instruments when the same is constructed in the manner substantially as above described.

SAMUEL CLARKE.

Witnesses:

GEO. PEYTON,  
L. ODELL.