

Imperial Patent Office  
[stamp:] Imperial Patent Office

# Patent Document

no. 9034

FRANZ NIX

in Neuss

## ADJUSTABLE WRENCH



Published March 22, 1880.

Class 87 a7  
Tools and Devices

Berlin  
Printed in the Imperial Printing Office

[handwritten:] *L4*

**EDWARDS LIFESCIENCES EX. 1024**

Edwards Lifesciences v. Boston Scientific Seimed

Patent Document

[stamp:] Imperial Patent Office  
Class 87.

1879

No. 9034  
Franz Nix in Neuss

ADJUSTABLE WRENCH

Additional patent to no. 7440 from March 5, 1879  
Patented in the German Empire on September 16, 1879  
Longest duration: March 4, 1894

On a conventional wrench with a hexagonal opening, the opening is provided with six loose jaws. The jaws have a trapezoidal shape, the height thereof being equal to half the height of an equilateral triangle, for which the side is equal to the base of the trapezoid.

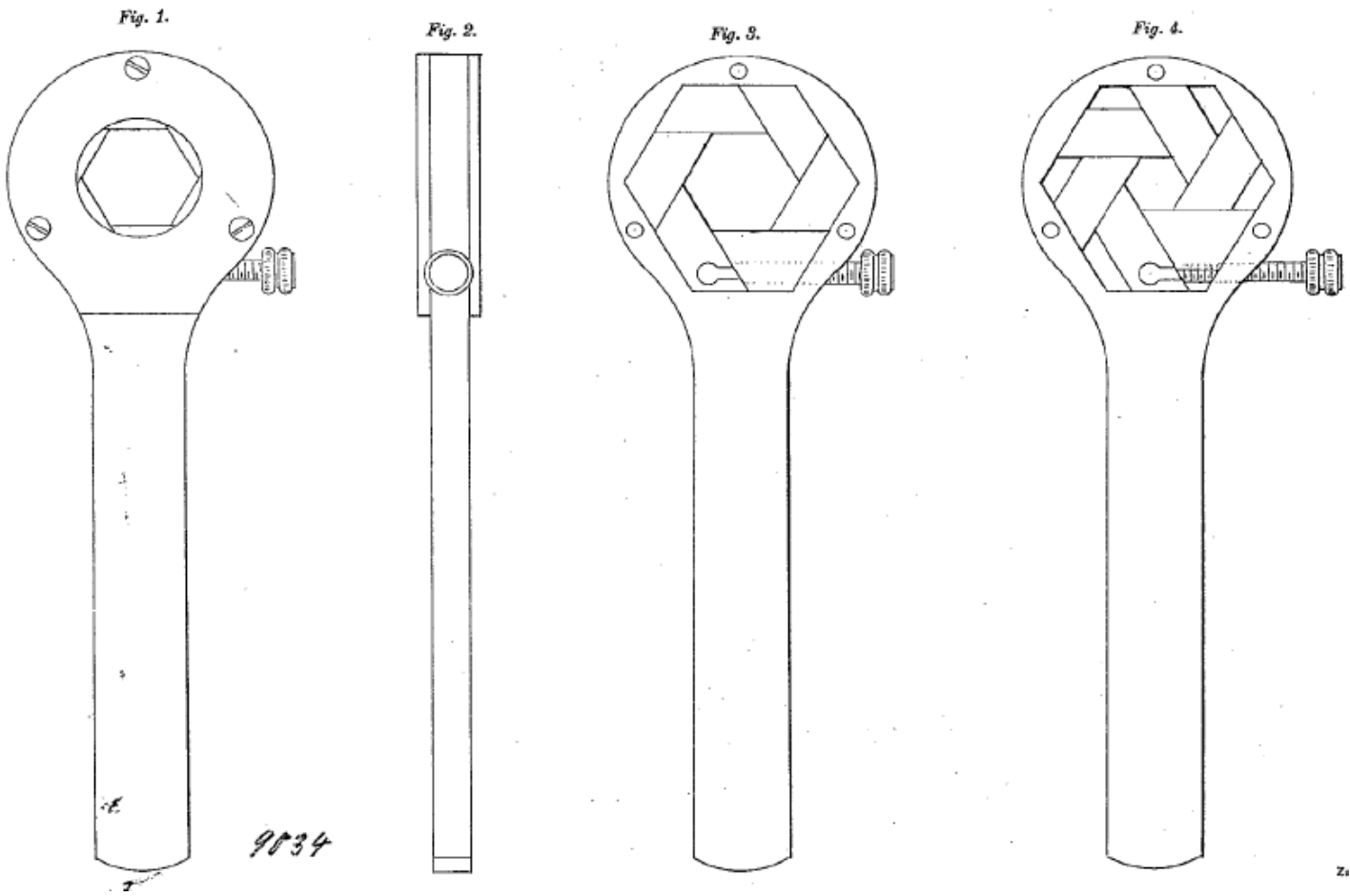
Each jaw is mounted such that the base of the trapezoid occupies the space from the center point of the hexagon to one corner of the same. Regarding the two non-parallel sides of the trapezoid: one [side] contacts the inner side of the hexagonal opening, the other [side] contacts the base of the adjacent jaw.

By displacing the jaws, a hexagonal opening occurs in the center point, which opening is differently sized according to the position of the jaws, and thus forms the actual adjustable wrench for hexagonal nuts. The displacement is effected by a screw, which engages with a jaw through the frame of the wrench. The jaws are manufactured from steel and hardened. Two covers retain the jaws in the wrench and allow only the displacement of the same.

Patent claim:  
Adjustable wrench with hexagonal opening.

Here follows 1 page of drawings.

Franz Nix in Neuss  
ADJUSTABLE WRENCH



Regarding patent application number  
No 934

Photographic print from the Imperial Printing Office

City of New York, State of New York, County of New York

I, Angela Lo, hereby certify that the document “DE9034C (Nix)” is, to the best of my knowledge and belief, a true and accurate translation from German into English.



Angela Lo, Project Assistant

Sworn to before me this  
October 7, 2016



Signature, Notary Public

**MICHELE CLAERHOUT**  
**NOTARY PUBLIC-STATE OF NEW YORK**  
**No. 01CL6345622**  
**Qualified in Bronx County**  
**My Commission Expires 07-25-2020**

Stamp, Notary Public

LANGUAGE AND TECHNOLOGY SOLUTIONS FOR GLOBAL BUSINESS

THREE PARK AVENUE, 39TH FLOOR, NEW YORK, NY 10016 | T 212.689.5555 | F 212.689.1059 | WWW.TRANSPECT.COM  
OFFICES IN 90 CITIES WORLDWIDE