

W. J. BARNSTEAD.  
CORPORATION COCK.  
APPLICATION FILED JUNE 8, 1908.

958,073.

Patented May 17, 1910.

Fig. 1.

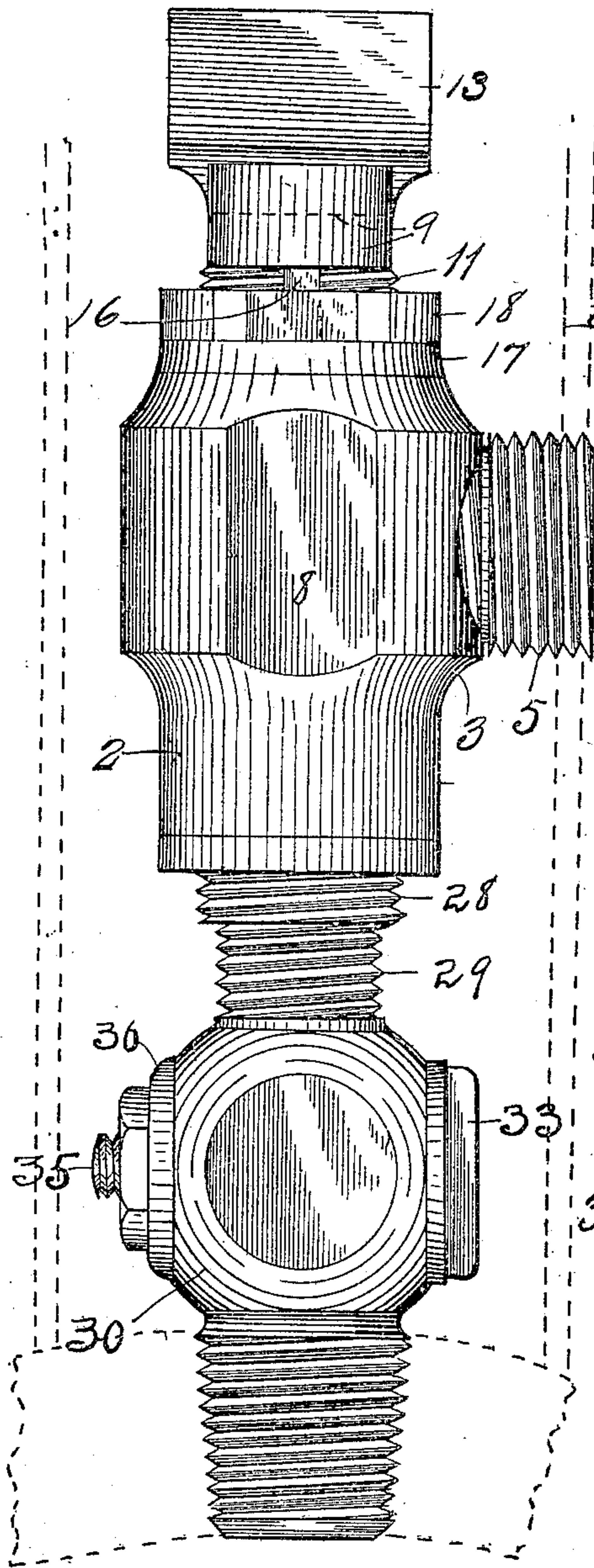
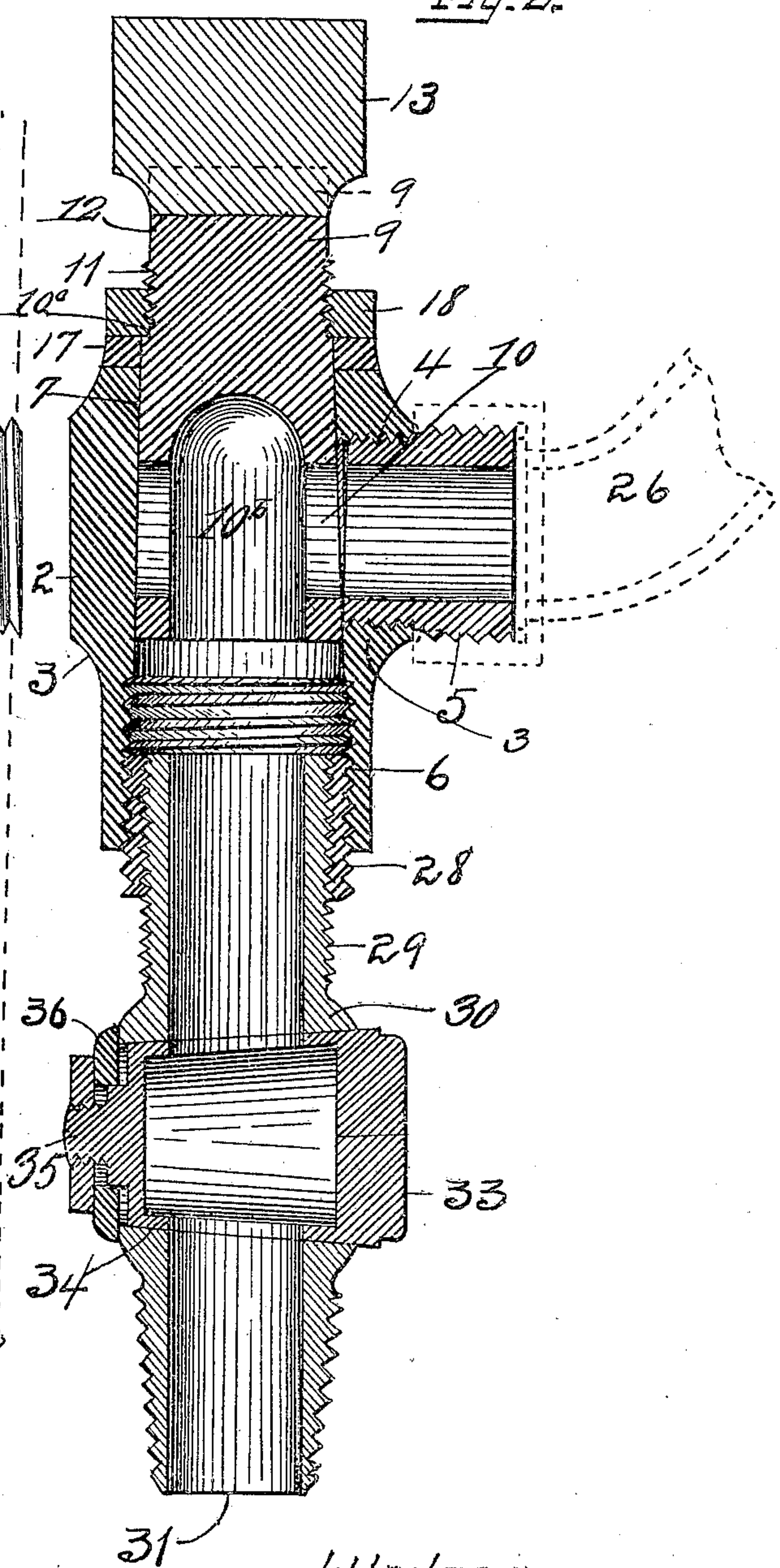


Fig. 2.



WITNESSES:

*S. R. Richards.*  
*Elmer Gary.*

INVENTOR:

*William J. Barnstead.*  
*By S. R. Richards,*  
*his atty.*



# UNITED STATES PATENT OFFICE.

WILLIAM J. BARNSTEAD, OF GALESBURG, ILLINOIS.

CORPORATION-COCK.

958,073.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed June 8, 1908. Serial No. 437,397.

*To all whom it may concern:*

Be it known that I, WILLIAM J. BARNSTEAD, a citizen of the United States, and a resident of Galesburg, in the county of Knox and State of Illinois, have invented a new and useful Corporation-Cock, of which the following is a specification.

The invention relates primarily to cocks or valves used to connect service-pipes with the mains of water supply systems.

Serious objections have arisen to the employment of corporation cocks of the type now in use. In order that the character of the invention may be better understood, it will be well to here enumerate some of the difficulties which cause such objections. Rust, corrosion, electrolysis and erosion all tend to decomposition and decay and all are factors in weakening the service pipes. When such weakness occurs, there are frequently found a great number of leaks between the water main and the delivery end of the service pipe. Inasmuch as it has been practically impossible to gain access to the nut on the corporation cock without digging a trench or hole thereto, (the nut being on the side of the cock and inaccessible by a wrench) plumbers have endeavored to locate the leak by closing the service cock, or cock intermediate the main and the faucet. This service cock has placement in a tubular box, the top of the latter being provided with a hinged cover which lies flush with the surface of the ground. By part-removal of the cover, access by means of a special wrench may be had to the cock to shut it off. The vicinity of the leak is indicated by the water rising above the surface. If the leak be between the service cock and the delivery end of the pipe it will be indicated by the cessation of the flow of water, but if between said cock and main it would not be thus indicated, and it then becomes necessary to dig a hole to the corporation cock in order to shut off the water.

I have sought to provide a practical device which is as accessible as is the service cock, and being adapted for vertical securement to the corporation cock, and provided with means at its free end which is adapted for ready engagement by a wrench, is as easily actuated as is said service cock. This, indeed, is the principal object of the invention.

Water is sometimes taken by unauthorized

persons whose service-cocks and thereby water supply has been shut off, which persons, without reporting it to the proper authority secretively turn on and use the water.

To dispense with a service-cock between the main and the delivery end of the service pipe constitutes another object of the invention.

It will, it may be here stated, be evident from the following description that my improvements are intended to be placed in a tubular box resting above the main and its upper end flush with the pavement and provided with access means.

To provide means whereby a portion of the device may be carried about by authorized persons, and without which portion it would be quite difficult to turn on or otherwise actuate the cock constitutes a further object of the invention.

A still further object of the invention is to provide a device of the nature described which may be readily attached to a corporation cock already threaded into the main. This is advantageous for the reason that it saves the expense of tapping the main.

Other objects will be in part obvious and in part pointed out.

With these objects in view the invention consists in the novel features herein described and made the subject matter of the claims hereto appended.

Figure 1 is an elevation of the invention. Fig. 2 is a central vertical section.

Reference being had now to the drawings by numerals, the same one indicating the same part in the different views, 2 represents a tubular valve-casing provided with an integral lateral aperture or discharge spout 3 which is interiorly threaded as at 4 for the reception of a connector 5, which may if preferred be cast integral with the casing. The latter is longitudinally bored to form an opening extending from one to the other of its ends, said opening being tapered from its lower interiorly threaded portion 6 to its upper portion 7 for a purpose hereinafter described. The exterior of the casing presents a symmetrical cylindrical outline except at the diametrically opposite sides 8 which are plane and parallel for ready engagement by a wrench or tapping machine. A spigot or plug 9, tapered from its lower to its upper end, is of such size and construction that when inserted from the vertical longitudinal opening in the casing, its



constricted upper end will project there-through, but its apertured portion 10<sup>b</sup> will be restrained therein and its aperture 10 adapted to register with the discharge spout in the casing. The plug is shouldered at 10<sup>a</sup>, threaded at 11, and its engaging end provided with a key-seat 12. The spigot 9 is slightly flattened on one side, 16, to engage and restrain from rotary movement a washer 17 fitted thereover and provided with an internal flat projection (not shown) in a common and well known manner.

A nut 18 is adapted to be slipped over the narrowed head of the spigot to engage the threads 11 thereon. Tightening of the nut will draw the tapered and machined portion of the spigot upwardly to any extent desired. Washers, packing-rings, gaskets and other like devices are thus dispensed with and an absolutely water-tight union or seal is effected. A box 27 is placed over the device with the discharge spout projecting through an opening in the box and the key standing in a vertical position and readily accessible by means of a long handled wrench or like device. The upper end of the box is protected by a suitable cover, not shown. The connection with the service pipe is made by the usual "goose-neck" 26 or other suitable connection. The key 13 may be dispensed with also, it being obvious that a T-wrench would be sufficient to engage the key seat and actuate the spigot. Various other unessential changes may be made in the construction, assemblage and mutual relationship of the parts of the device without departing from the general idea of the invention.

As shown in the drawings, the device is attached to a well known form of corporation cock, the latter being threaded into the main. Connection is made by means of a bushing 28 screwed into the threaded lower end 6 of the valve casing 2 and into which bushing screws the threaded upper end 29

of the casing 30 of the corporation cock. This casing has a longitudinal through-opening 31, and a transverse opening 32, in which latter opening is seated a turning plug 33 having the usual water passage 34, and a threaded end 35. The turning plug is held in place within the valve casing by means of a nut screwed on the threaded end 35 thereof, there being a washer 36 interposed between the nut and the casing.

When the hereindescribed assemblage is made, it will be evident that an unobstructed passage is provided for the water, while ready access is had to the key inasmuch as it is directly beneath the vertical opening into the box.

I claim:

1. The combination with a corporation cock, of a casing connected thereto, and having a longitudinal bore in communication with the bore of the cock, said casing also having a lateral opening communicating with the longitudinal bore, and a turning plug mounted in the longitudinal bore, said plug having waterways adapted to connect the longitudinal bore with the lateral opening.

2. The combination with a corporation cock, of a tubular connection secured thereto, a casing mounted on said connection, and having a longitudinal bore in axial alignment, with the bore of the connection, said casing also having a lateral opening communicating with the longitudinal bore, and a turning plug mounted in the last mentioned bore, said plug having waterways adapted to connect the longitudinal bore with the lateral opening.

Signed at Galesburg, in the county of Knox and State of Illinois this 26th day of May, 1908.

WILLIAM J. BARNSTEAD.

Witnesses:

JOHN J. TUNNICLIFF, Jr.,  
JOHN WILSON.