

T. W. SMALL.
TELEPHONE ATTACHMENT.
APPLICATION FILED SEPT. 10, 1907.

953,442.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 1.

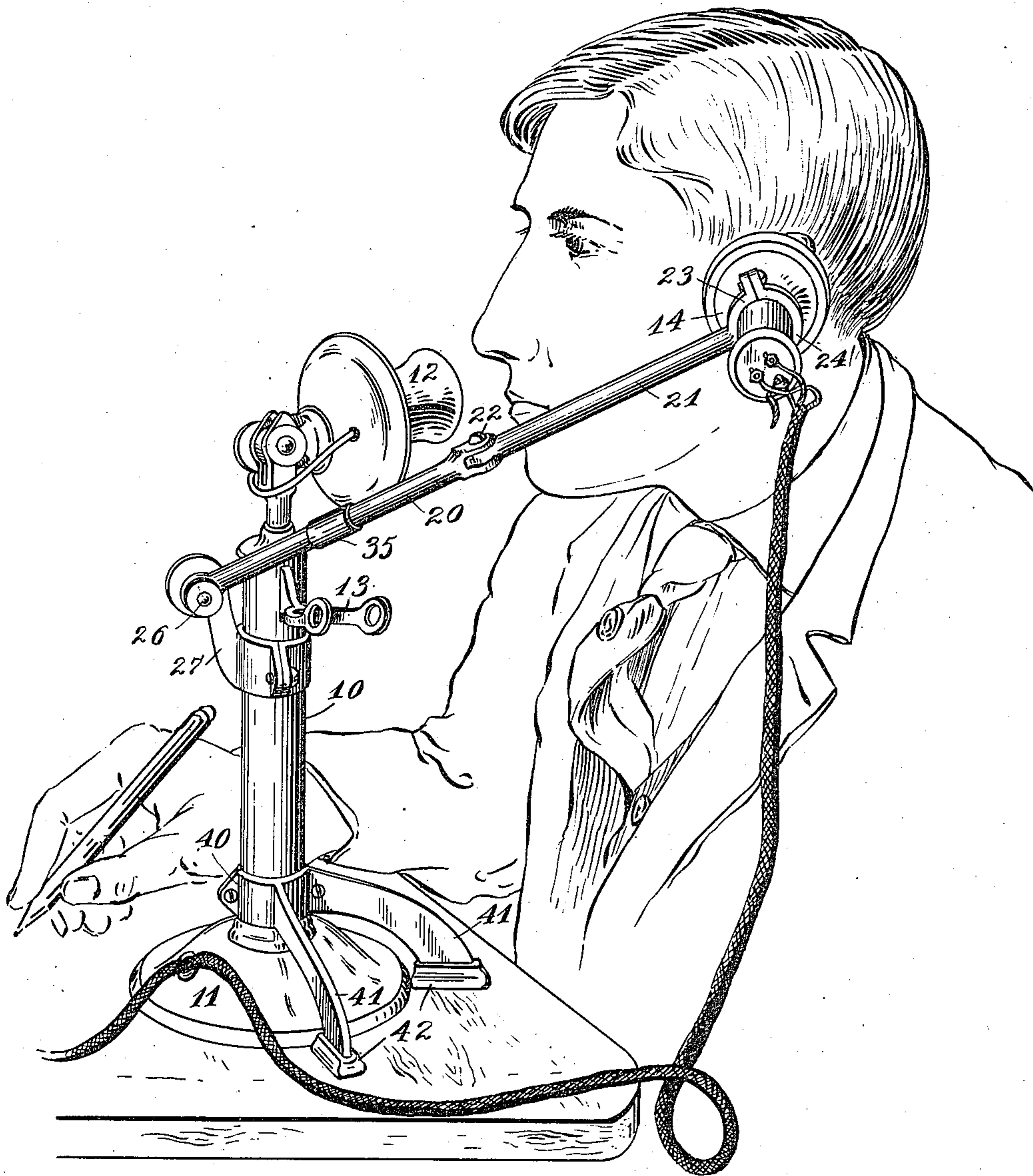


FIG. 1

WITNESSES:

Brennan West.
Nathan F. Fretter

INVENTOR,

Thomas W. Small,

BY Bates, Ford & Hull,

ATTYS.

T. W. SMALL.
TELEPHONE ATTACHMENT.
APPLICATION FILED SEPT. 10, 1907.

953,442.

Patented Mar. 29, 1910.

2 SHEETS—SHEET 2.

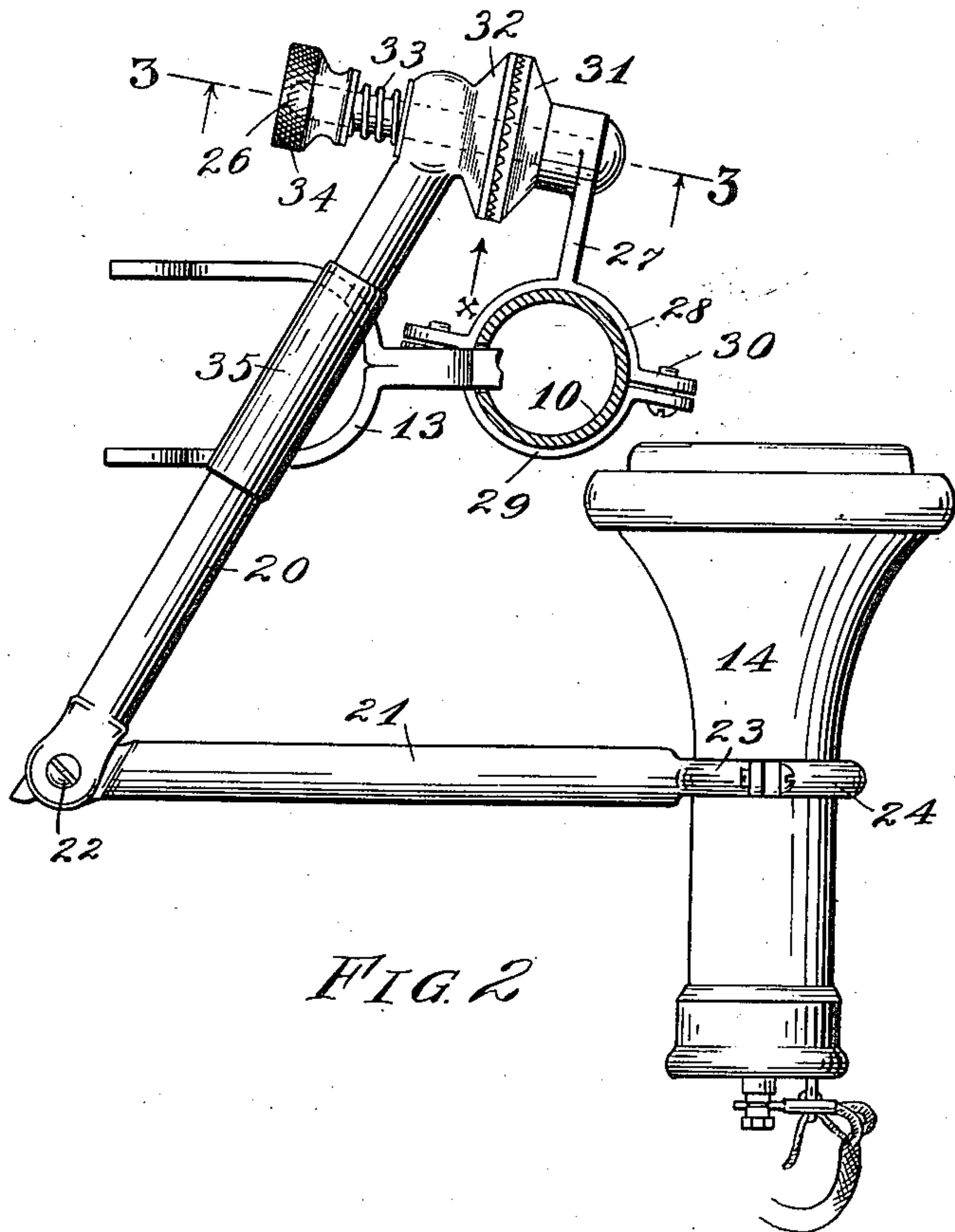


FIG. 2

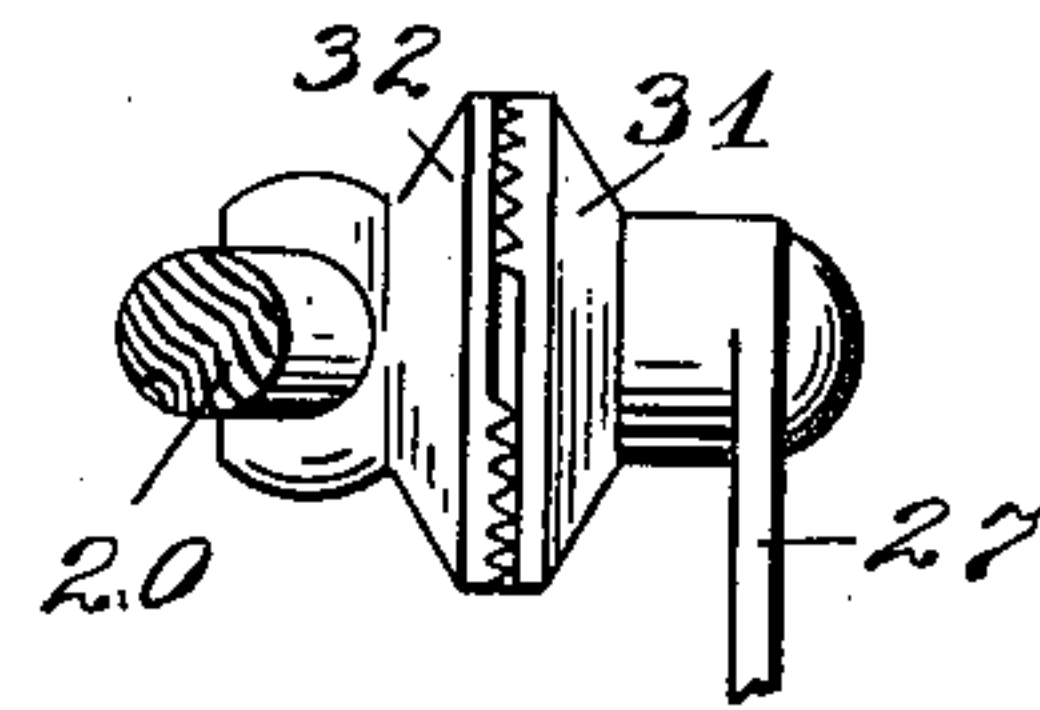


FIG. 4

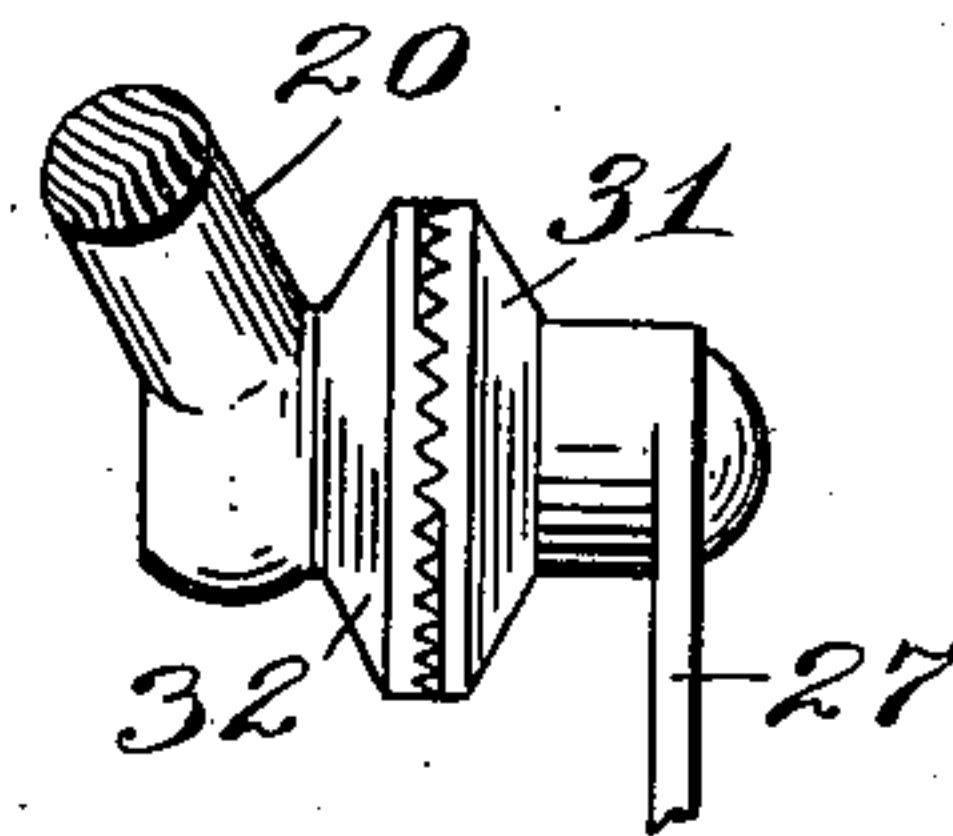


FIG. 5

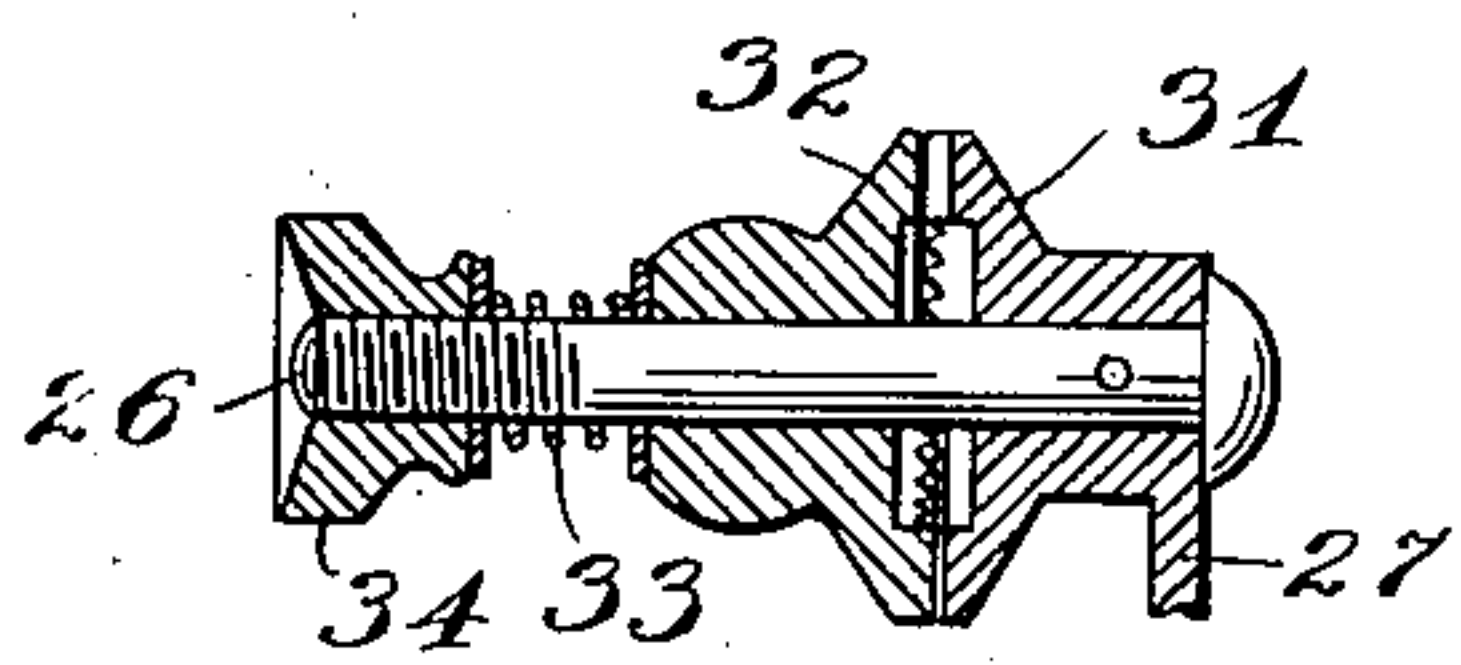


FIG. 3

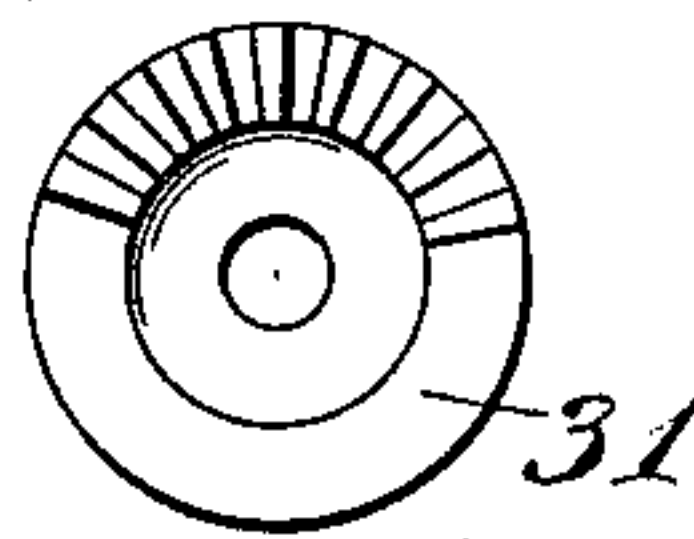


FIG. 6

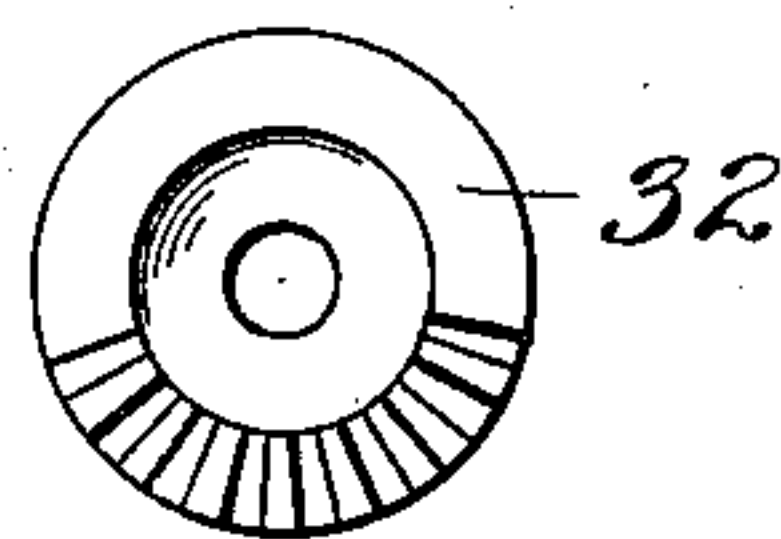


FIG. 7

WITNESSES:
Foreman B. West,
Nathan F. Fretter

INVENTOR,
Thomas W. Small,
BY Baker, Fouts & Hull
ATTYS.

UNITED STATES PATENT OFFICE.

THOMAS W. SMALL, OF CLEVELAND, OHIO, ASSIGNOR TO THE ACME AUTOMATIC STREET INDICATING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

TELEPHONE ATTACHMENT.

953,442.

Specification of Letters Patent.

Patented Mar. 29, 1910.

Application filed September 10, 1907. Serial No. 392,141.

To all whom it may concern:

Be it known that I, THOMAS W. SMALL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Telephone Attachments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

10 The object of this invention is to provide a simple and effective attachment for telephones adapted to support the receiver in proper juxtaposition to the speaker's ear, thereby leaving both his hands free.

15 The invention is well adapted for embodiment in an attachment for standard or desk telephones, and is so arranged that in normal position it depresses the usual switch hook, while when elevated it releases the hook to effect the switching within the standard. It may be elevated to varying limits to suit the user and is adapted to remain automatically in any of such elevated positions.

25 The invention consists in the means by which the above results are accomplished as hereinafter more fully explained.

30 In the drawings, Figure 1 is a perspective view of my attachment in place on a standard or desk telephone; Fig. 2 is a plan of the attachment, the standard being sectioned just about the hook; Fig. 3 is a section through the pivot shaft of my attachment, as indicated by the line 3—3 of Fig. 2; Fig. 35 4 is an edge view of the two serrated disks which operate to hold the arm in any desired position, this view being taken from a point indicated in Fig. 2 and showing the parts in normal position; Fig. 5 is a similar view, with the arm in elevated position; Fig. 6 is a face view of the serrated disk carried by the support, and Fig. 7 is a face view of the disk carried by the arm.

45 As shown in the drawings, 10 represents the tubular standard of a usual desk telephone, this standard having the base 11 and carrying the transmitter 12 and the usual switch-hook 13, which ordinarily carries the receiver. The receiver indicated by 14 is 50 carried by my attachment.

My attachment includes a pair of arms or rods 20 and 21 connected by a knuckle-joint 22 and supported from the standard by a bracket 27. The arm 21 is provided with a

forked end 23 extending half-way around 55 the receiver barrel and coöperating with the same is a semi-circular clamping plate 24. These parts are fastened together by screws and securely clamp the receiver in place. The arm 20 at its lower end extends around 60 a stud 26 projecting from the bracket 27 which is forked at 28 and provided with a clamping plate 29 and screws 30 by which it is clamped to the standard 10. The bracket 27 and the arm 20 are provided with co- 65 operating members adapted to hold the arm in any position desired. As shown, such co-operating surfaces consist of serrations on the faces of two disks, one of these disks 31 being carried by the bracket, and the other 70 32 by the arm. A spring 33 surrounding the stud and compressed by a thumb-screw 34, screwing onto the end of the stud, presses the two serrated surfaces together.

In the normal position of the parts, that 75 is, when the telephone is out of use, the arm 20 extends substantially horizontally across the switch-hook 13 and maintains it depressed due to the weight of the arms and the receiver. In this position of the parts 80 the teeth on the two members 31 and 32 are out of engagement with each other as shown in Fig. 4. The rod 20 is prevented from making an electrical contact with the hook 30 by reason of an insulating sleeve 35 sur- 85 rounding the rod and adapted to engage the hook. When the receiver is being elevated for use, as soon as the switch-hook has come into its uppermost position, the teeth on the member 32 begin to engage those on the 90 member 31 as shown in Fig. 5. The compression of the spring 33 by the nut is such that the arm may be easily swung to cause these teeth to move past each other, while the weight of the receiver and arms is not 95 sufficient to release the engagement. The result is that the receiver may be swung up into the desired position and left there supported by my attachment as long as desired, while when the user is through with the tele- 100 phone, a slight downward pressure on the receiver or arms restores the parts to normal position.

This attachment allows the position of the receiver to be adjusted to perfectly suit the 105 user. Not only is the elevation of the rod adjustable by reason of the pivotal support described, but the bracket 27 is adjustable

on the standard, both up and down and laterally. Adjustment is also allowed between the receiver and the clamp on the rod 21.

To insure the standard against overturning, due to the weight and leverage of the receiver when the arms 20 and 21 are in alinement, I provide a suitable brace which is shown in Fig. 1 as a bracket 40 clamped about the standard 10 and having projecting arms 41 which carry feet 42 adapted to rest on the table or desk.

It will be seen that my invention is very simple and inexpensive in construction and is easily applied to the telephones now in use. It is of great value in relieving the operator of the necessity of using one of his hands to hold the receiver, whereby both hands are free. He may for example, use one hand to turn the pages of a record book and the other to make notations therein, as is frequently desirable by an operator receiving orders. This is but one of numerous instances where the attachment is of great value.

The attachment will ordinarily be positioned to suit the user while seated at his desk, but at the same time the range of elevation of the rods is sufficient so that, with the same adjustment, the receiver may be swung up in position for use by one standing and bending over to speak into the transmitter.

I claim:—

1. The combination with a telephone having a switch hook, a member adapted to carry the receiver and extend across and bear down on the switch hook, means for supporting the member in any adjusted position and a projecting member carried by the telephone to prevent overturning.

2. The combination, with a desk standard telephone, of a bracket secured to the standard, mechanism carried by said bracket and including an arm adapted to support the receiver, said mechanism normally resting on the switch-hook, but when elevated into using position releasing the switch-hook, and disks having engaging teeth mounted upon the bracket and adapted to hold the arm in any adjusted position.

3. The combination with a telephone having a switch-hook, a member adapted to carry the receiver and extend across and bear down on the switch-hook, and means for supporting said member in various adjusted positions.

4. The combination with a telephone having a switch-hook, a pivoted arm adapted to carry the receiver and extend across and bear down on the switch-hook, and means for automatically supporting said arm in various adjusted positions.

5. The combination with a telephone having a switch-hook, a pivoted arm adapted to carry the receiver and extend across and

bear down on the switch-hook, a support for the arm, said support and arm having cooperating engageable members, and a spring acting on said members.

6. The combination with a telephone having a switch-hook, a pivoted rod adapted to carry the receiver and extend across and bear down on the switch-hook, and means for supporting said arm in various adjusted positions, said means comprising two cooperating members, one having a series of depressions and the other series of projections.

7. The combination with a telephone having a switch-hook, a pivoted rod adapted to carry the receiver and extend across and bear down on the switch-hook, means for supporting the rod in various adjusted positions, said means comprising two cooperating disks having serrations on their proximate faces and a spring tending to force said disks toward each other, and means for adjusting the spring, the teeth on the two disks being normally out of engagement with each other while the rod rests on the hook.

8. The combination, with a telephone having a switch-hook, of an arm adapted to support the receiver at all times and to hold the same in position adjacent the user's ear when in use and adapted to extend across the switch-hook and hold it depressed, when the receiver is not in use.

9. The combination, with a telephone having a switch-hook, of a bracket, an arm pivoted thereto and adapted to support the receiver at all times, and to hold the same adjacent the user's ear when in use said arm extending across the switch-hook and adapted to hold it depressed, when the receiver is not in use.

10. The combination, with a telephone having a switch-hook, an arm adapted to support the receiver at all times, said arm extending across the switch-hook and adapted to hold it depressed when the receiver is not in use, and insulation carried by said arm above the switch-hook.

11. The combination with a desk standard telephone, of a bracket adjustably clamped to said standard, a jointed arm carried by said bracket and adapted to be held thereby in various positions of elevation, said arm carrying the telephone receiver and extending across the switch-hook and adapted to normally hold it depressed.

12. In combination with a telephone having a circuit-controlling arm, a bracket, and a frame for carrying the receiver of the telephone, swingingly mounted on the bracket and adapted to rest on said arm when swung to a depressed inoperative position and release said arm when swung upward in position for use.

13. In a telephone the combination of the

support, the transmitter thereon, the vertically movable, normally elevated contact arm projecting from the support, a receiver arm pivotally connected to the support and
 5 movable into and from a position resting upon and depressing the contact arm, and a receiver carried by the receiver arm.

14. In a telephone the combination of the support, the transmitter thereon, the vertically movable, normally elevated contact arm
 10 projecting from the support, a bracket detachably secured to the support, a receiver arm pivoted to the bracket and movable into and from a position resting upon and de-
 15 pressing the contact arm, and a receiver carried by the receiver arm.

15. In a telephone the combination of the support, the transmitter thereon, the vertically movable, normally elevated contact arm
 20 projecting from the support, a receiver arm pivotally connected to the support and movable into and from a position resting upon and depressing the contact arm, a receiver carried by the receiver arm, and means for
 25 adjusting the position of the receiver.

16. The combination of a telephone stand having an upright body and a pivoted switch lever, with a bracket adjustably clamped
 30 around the body part of the stand and provided with a pivot arranged in a horizontal plane close to the horizontal plane of the switch lever, a swinging arm hinged to the pivot carried by the bracket and adapted to
 35 be swung so as to rest directly and bodily upon and be supported by the switch lever, a telephone receiver, and means on the free end of the swinging arm for supporting the receiver.

17. The combination of a telephone stand
 40 having an upright body and a pivoted switch lever, with a bracket adjustably clamped around the body part of the stand and provided with a pivot arranged in a horizontal
 45 plane close to the horizontal plane of the switch lever, a swinging arm hinged to the pivot carried by the bracket and adapted to be swung so as to rest directly and bodily upon and be supported by the switch lever,
 50 a telephone receiver, and means on the free end of the swinging arm for supporting the receiver said means consisting of a clamp comprising one part mounted on the end of the arm, a second part and clamping devices for drawing the parts together.

55 18. The combination of a telephone stand having an upright body and a pivoted switch lever, with a bracket adjustably clamped around the body part of the stand and provided with a pivot arranged in a horizontal
 60 plane close to the horizontal plane of the switch lever, a swinging arm hinged to the pivot carried by the bracket and adapted to be swung so as to rest directly and bodily upon and be supported by the switch lever,
 65 a telephone receiver, and means on the free

end of the swinging arm for supporting the receiver and in which the axis of oscillation is oblique when the arm is moved to bring the receiver in hearing position.

19. In a telephone, the combination of a
 70 support carrying a transmitter, a vertically movable, normally elevated switch arm, projecting from said support, a bracket detachably secured to said support, an arm
 75 pivotally mounted on said bracket and movable into and from a position resting upon and depressing the switch arm, and a receiver having its barrel embraced by a clamp upon the end of said arm, the barrel
 80 being adjustable axially in the clamp and occupying a position oblique to the switch arm.

20. The combination with a telephone standard having a switch lever, of a bracket
 85 carried by the standard, an arm pivoted on the bracket, said arm lying in substantially a horizontal position and bearing down upon the switch hook, a telephone receiver carried by the said arm, said arm being adapted to be raised when the receiver is
 90 to be used thereby releasing the switch hook.

21. The combination with a telephone frame having a switch hook, of an arm
 95 pivotally supported thereby extending above the switch hook and normally depressing the same, said arm carrying a receiver and adapted to be raised when the receiver is to be used thereby releasing the switch hook.

22. The combination with a telephone
 100 frame, of a bracket supported thereby, an arm pivoted upon said bracket extending above the switch hook and normally depressing the same, said arm carrying the receiver and adapted to be raised when the
 105 receiver is to be used whereby the switch hook is released, and means for holding said arm in any degree of elevated position.

23. The combination with a telephone
 110 frame, of a bracket supported thereby, an arm pivoted upon said bracket extending above the switch hook and normally depressing the same, said arm carrying the receiver and adapted to be raised when the
 115 receiver is to be used whereby the switch hook is released, and means for holding said arm in any degree of elevated position, said means comprising cooperating teeth upon the arm and bracket.

24. The combination with a telephone
 120 frame having a switch hook, of a plate supported by said telephone frame, a stud cooperating with said plate, an arm having a plate which is mounted upon the stud to cooperate with the first mentioned plate,
 125 said plates being resiliently pressed toward each other, a telephone receiver carried by the arm, said arm lying in substantially horizontal position and pressing upon the switch hook and adapted to be raised when
 130

the receiver is to be used to release the switch hook and support the receiver in position adjacent the user's ear.

25. The combination with a telephone frame and a receiver, of an arm pivotally mounted upon said frame adapted to carry the receiver, means associated with the pivoted part of the arm for holding said arm in any degree of adjusted position, said arm being adapted to lie in substantially horizontal position above the switch hook to press the same downward when the receiver is not in use.

26. The combination of a telephone standard having a switch hook, a bracket carried by the standard, an arm pivoted upon the bracket, said arm being formed in two parts, which parts are hingedly secured together, a portion of the arm engaging the switch hook to normally depress the same, the other normally extending at right angles to the first mentioned portion of the arm.

27. A telephone standard having a switch hook, a bracket carried by the standard, a rod pivoted upon said bracket, said rod lying above and normally depressing the switch hook, an arm hinged upon the rod and normally extending at right angles thereto, a telephone receiver carried by the arm, said arm being adapted to be moved into substantial alinement with the rod and the rod to be raised to release the switch

hook and support the receiver adjacent the ear of the user.

28. The combination with a telephone having a switch hook, of a receiver, a support for said receiver, said support normally extending above the switch hook to depress the same, said support being raised in a vertical direction when the receiver is brought to the user's ear, which movement of the support releases the switch hook.

29. The combination with a telephone frame having a switch hook, of a receiver, a support for said receiver which normally extends above the switch hook and bears down thereon to depress the same, said support being joined near the middle thereof, one portion of the support being adapted to normally be turned in toward the other portion of the support and to be brought into alinement with the first portion when the receiver is to be used, the whole support being raised, whereby the switch hook is released, and a member engaging with the base of the telephone to prevent the overturning of the same when the arm is extended.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

THOMAS W. SMALL.

Witnesses:

ALBERT H. BATES,
S. E. FOUTS.