

No. 741,611.

PATENTED OCT. 20, 1903.

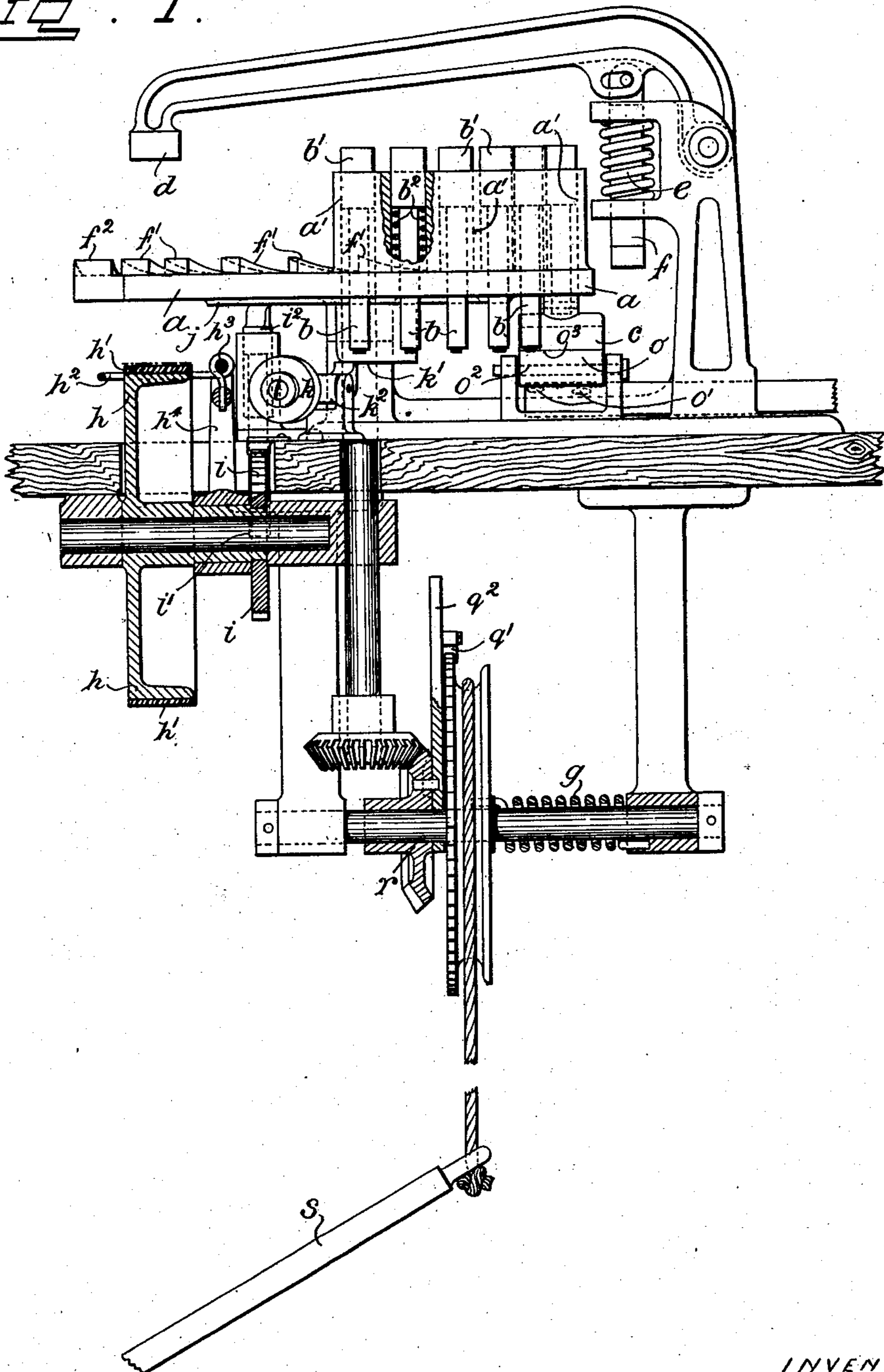
D. ANDERSON.
APPARATUS FOR MARKING FABRICS.

APPLICATION FILED JAN. 12, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

FIG. 1.



WITNESSES

Fred White
Thomas Halladay

INVENTOR:

David Anderson,
By his Attorneys

Arthur C. Orson & Co

No. 741,611.

PATENTED OCT. 20, 1903.

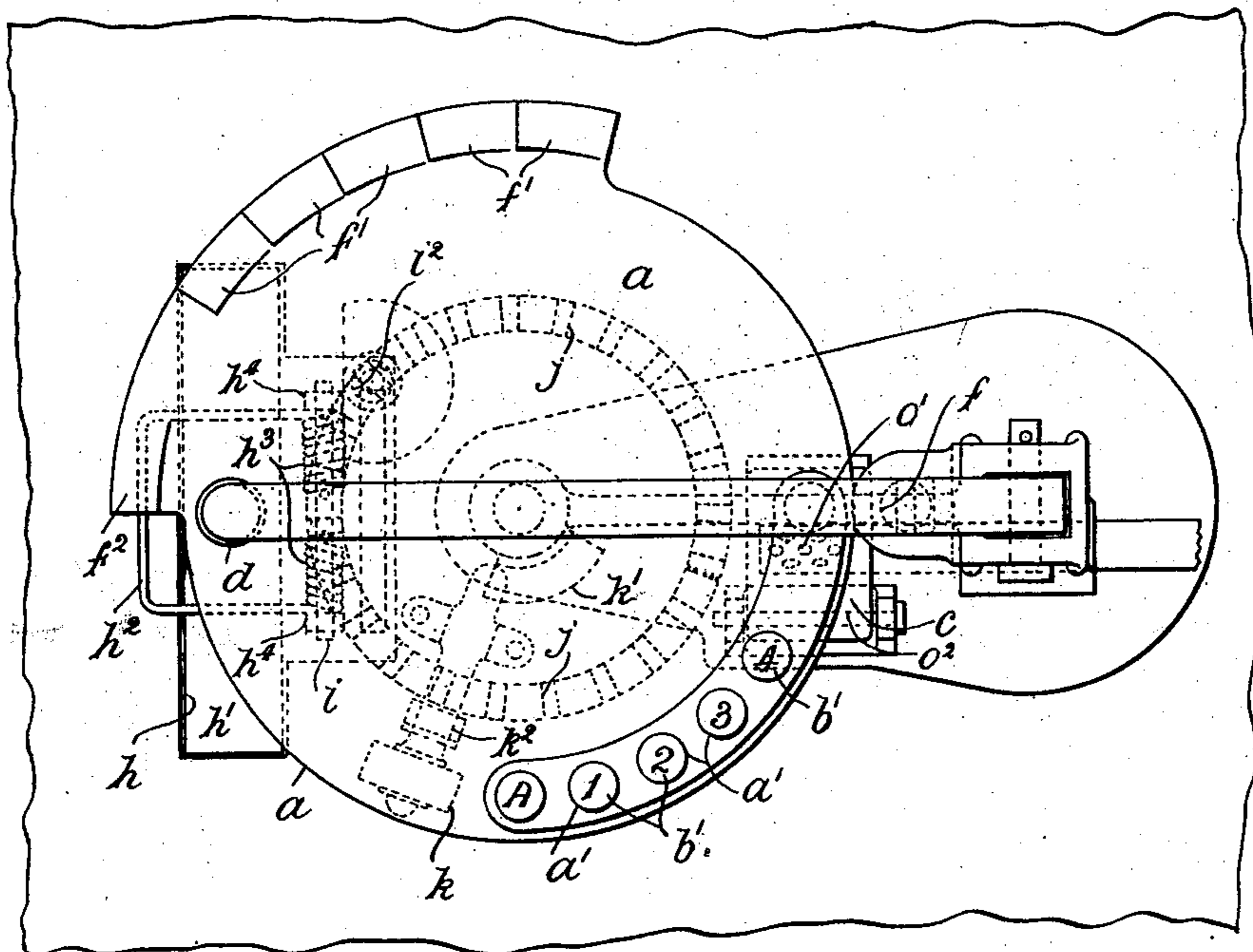
D. ANDERSON.
APPARATUS FOR MARKING FABRICS.

APPLICATION FILED JAN. 12, 1903.

NO MODEL.

3 SHEETS—SHEET 2.

Fig. 2.



WITNESSES

Fred White
Thomas Mallard

INVENTOR:

David Anderson,

By his Attorneys:

Arthur C. Orason & Co.

No. 741,611.

PATENTED OCT. 20, 1903.

D. ANDERSON.
APPARATUS FOR MARKING FABRICS.

APPLICATION FILED JAN. 12, 1903.

NO MODEL

Fig. 3.

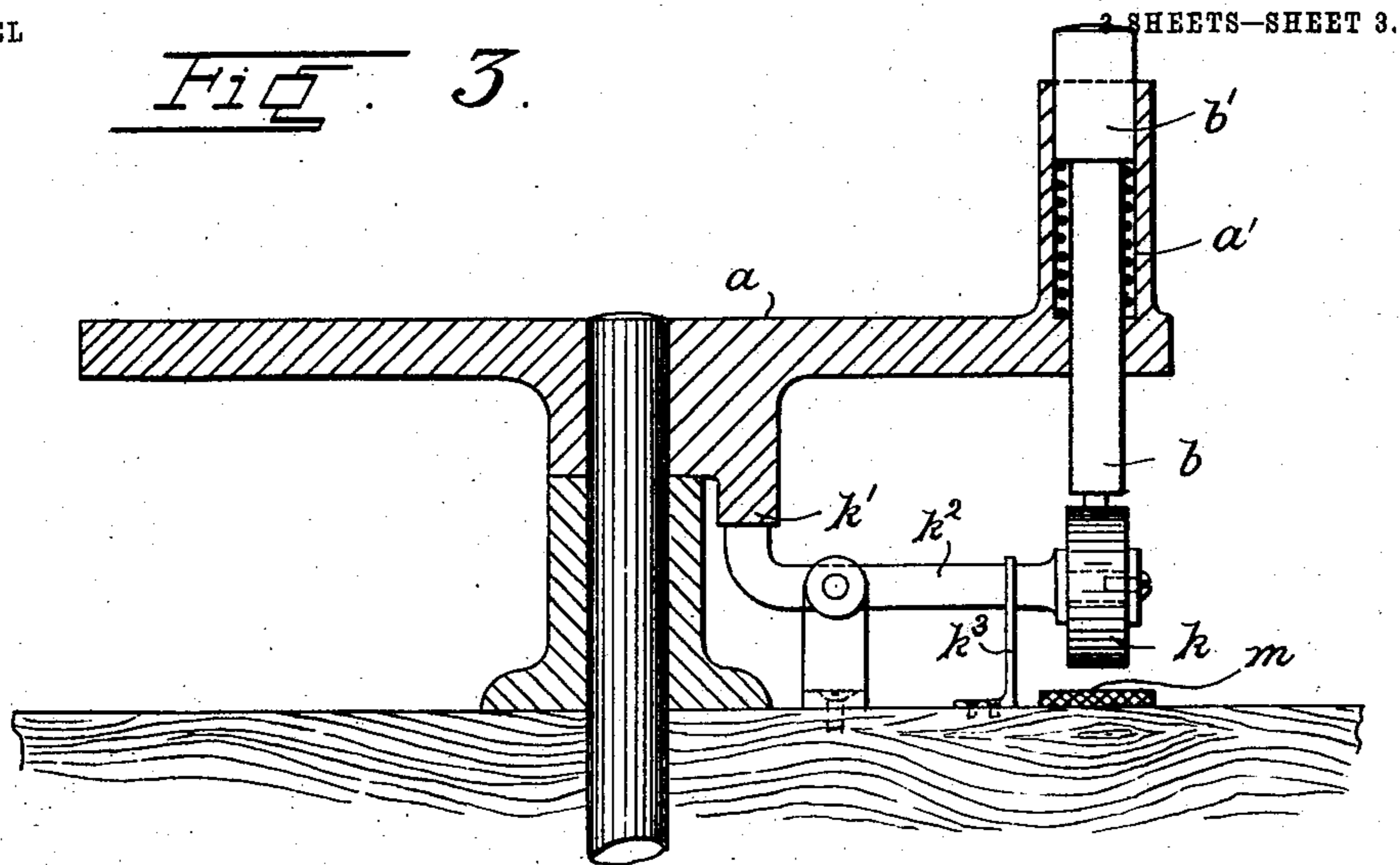
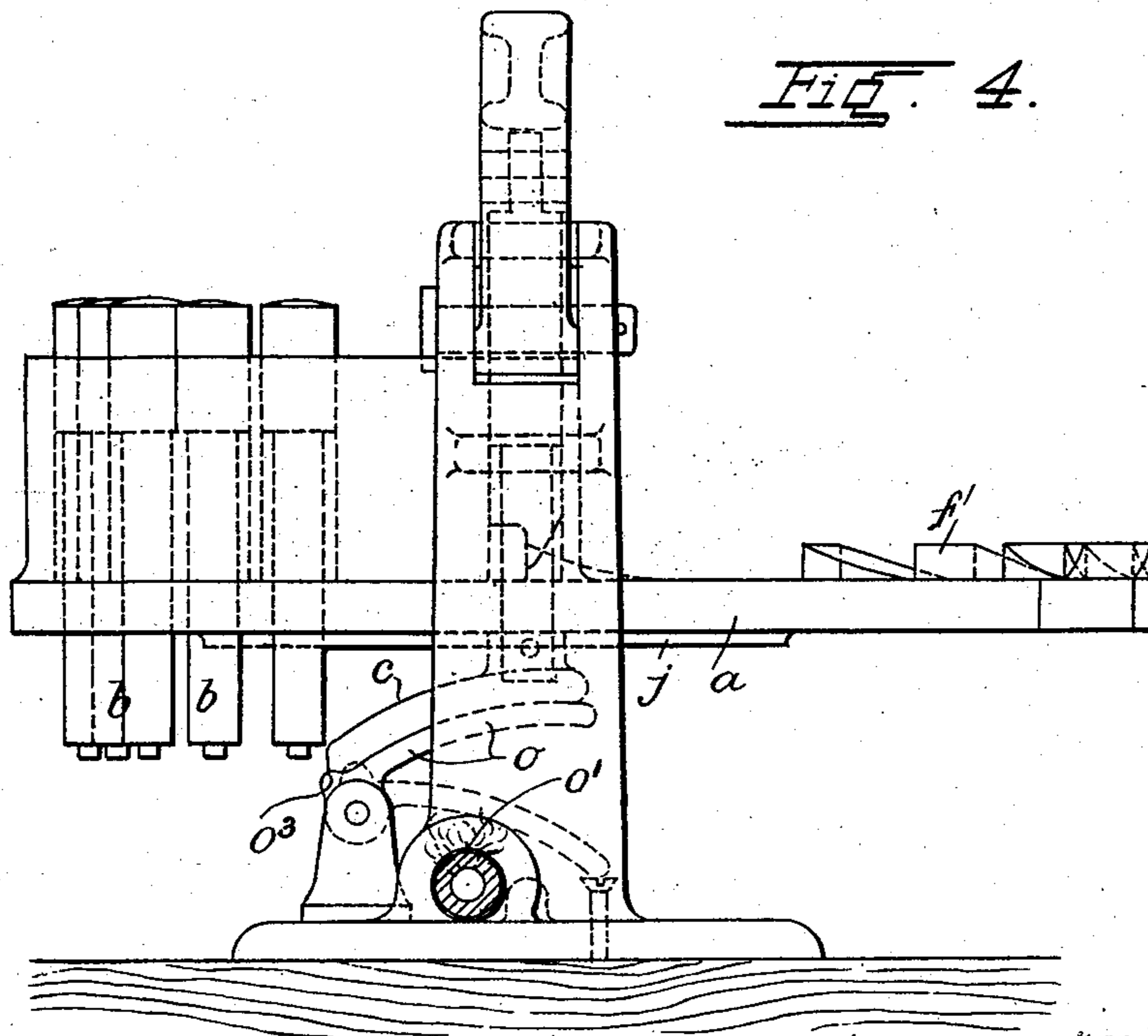


Fig. 4.



WITNESSES:

Fred White
Thomas Halladay

INVENTOR:

David Anderson,
By his Attorneys:
Arthur C. Orger

UNITED STATES PATENT OFFICE.

DAVID ANDERSON, OF LONDON, ENGLAND.

APPARATUS FOR MARKING FABRICS.

SPECIFICATION forming part of Letters Patent No. 741,611, dated October 20, 1903.

Application filed January 12, 1903. Serial No. 138,655. (No model.)

To all whom it may concern:

Be it known that I, DAVID ANDERSON, engineer, of 9 Poynders road, Clapham Park, in the county of London, England, have invented certain new and useful Improvements in Apparatus for Marking Fabrics for Laundry and other Purposes, of which the following is a specification.

This invention relates to apparatus for marking fabrics for laundry and other purposes and also to distinguish the maker's name, quality, and size of such new goods, such as collars, sheets, and underclothing.

The object of the invention is to provide an apparatus especially useful for marking the before-mentioned goods in a quick and efficient manner and to enable the mark to be varied as required and interchanged for the purpose of identifying the goods of various persons.

Hitherto it has been the custom to first stamp the goods by an inked type or die operated by hand and then to afterward iron them or heat them by hand to render the marks indelible. This necessitated two operators or two operations, and the work, being done by hand, is necessarily slow, while accuracy in marking is not always attained, owing to the numerous dies employed and the lettering of the die being not very clear to the operator. To obviate these defects and attain the objects mentioned, I provide a machine comprising a die-case or a reciprocating or rotary die-table having a suitable number of interchangeable dies having either fixed or interchangeable on their lower ends single symbols or words or other combinations of characters and combined with an ironing-surface and a hammer or pressing action and a moving work-table and so arranged for manual or power operation that after the dies have been set the operator places the goods on the table and actuates or releases the die-table, which moves its dies successively under the hammer or into a position where they are impressed on the work, the complete movement of the table then carrying the iron (which is suitably heated) over the work to complete the operation of marking. The whole apparatus is arranged to work in uni-

son, so that the operation is performed in a quick and efficient manner by one operator. The dies are so arranged as to be interchangeable with the signs or letters marked in a distinct and legible manner on the upper face so that the combination of letters or dies is at once apparent to the operator. Suitable mechanism is provided for inking the dies at each operation, and a counting mechanism to indicate the number of operations may be added, if required.

I have illustrated one form of my invention adapted for manual operation in the accompanying drawings, in which—

Figure 1 is a part-sectional side elevation. Fig. 2 is a plan; Fig. 3, a detail view showing the die-inking device. Fig. 4 is a detail view showing the ironing device.

The apparatus shown comprises a rotary wheel or die-table *a*, perforated or provided with sockets *a' a' a'* around a portion of its circumference for receiving the dies *b*, which are placed therein from the upper side and having enlarged heads *b'*, upon which the letters or signs corresponding with those on the smaller end of the die are clearly depicted, as indicated by the signs "A 1 2 3 4" on the drawings, so as to be visible on the upper face of the wheel. The socket for receiving the die is preferably elongated, as shown, so as to receive a spring *b²*, which supports the dies and serves to return them to normal position after they have been pressed down upon the goods.

At the rear of the table *a* and carried on the under side thereof is an ironing-surface *c* of suitable dimensions, embedded, if required, upon springs or resilient supports. If required, the iron *c* may be formed in one with or fixed to the die-table *a*, and suitable resiliency may be obtained by mounting the said table or the work on springs or equivalent. Projecting over the table is a hammer device *d* for pressing down the dies one at a time. The hammer-actuating devices are so arranged that the hammer is pressed or struck down upon the dies directly they come into position below the hammer for operation, while no operation of the hammer takes place on the return motion of the die wheel or ta-

ble during the completion of the motion. In the case of a reciprocating motion a ratchet-and-pawl device will be employed, arranged to insure that no operation of the hammer takes place. In the form shown in the drawings the operation is accomplished by raising the hammer d against the action of a spring, such as e , by means of a reciprocating rod f , actuated by cams $f' f'$ upon the rotating die-table a . The iron c is also pressed onto the work by the hammer, which is actuated for the purpose by a cam f^2 , acting in a similar manner to the cams $f' f'$.

The die-table is driven through a one-directioned clutch mechanism comprising a pulley or band-wheel provided with ratchet-teeth engaged by a pawl q' upon an arm q^2 , fixed to the driving-pinion r , the band-wheel being actuated by a foot-lever s , the arrangement of which is preferably such that a determined period of movement is imparted to the apparatus at each operation of the foot-lever—that is to say, the die-table receives a half-revolution at each depression of the foot-lever, the foot-lever being returned to raised position by a spring, such as g , fitted upon the shaft of the band-wheel and connected at one end to the fixed frame of the machine.

h is the work-table in the form of a roller covered on its edge with resilient material h' , disposed above the work-table, and moving therewith is a clamping-frame h^2 , conveniently formed of a spring-wire frame coiled at its ends upon a spindle, as at h^3 , and suitably fixed thereto so as exert the required pressure upon the work to keep same stretched upon the wheel. The said clamping device is mounted on an arm h^4 , mounted loosely on the spindle of the work-table wheel, so that the said device can be readily moved back to position at each operation, while the work-table may have a progressive motion in one direction only.

In order that the successive letters or signs in the die-wheel may be properly spaced apart in printing, the work-table h is adapted to be rotated a distance corresponding with the width of the type on each die and a suitable allowance for spacing. This is effected by means of a ratchet-wheel i and actuated by a pawl i' , carried by a reciprocating spring-pressed rod i^2 , depressed by a series of cams j on the die-wheel a . In some cases means may be provided for returning the table by a spring or other means for the next operation.

An inking pad or roller k will be suitably arranged in the line of movement of the type or dies or will be reciprocated thereover by a suitable connection at each operation. Fig. 3 shows an arrangement where the inking-roller k is moved backward and forward onto and away from the type by a cam k' on the die-wheel a , engaging and actuating a pivoted lever k^2 , on which the inking-roller k is mounted. k^3 is a slotted guide for the roller, and m is an inking-pad upon which the ink-

ing-roller bears in its lowest position, so as to always receive the requisite supply of ink.

Fig. 4 shows the iron c and the means for heating same. The iron c is of a curved form to adapt itself to the curved surface of the rotary work-table. The iron c in its normal position (shown) rests upon a heating device or hot-plate o , which may conveniently be made of copper and is heated by gas-burners, as at o' , suitably fitted. The hot-plate o is pivoted at one side, as at o^2 , and has a small projection o^3 thereat, so that in its normal position it rests down on the burners, but is raised into contact with the ironing-surface automatically when the iron passes thereover and engages its pivoted end.

In operation of an apparatus such as described the operator will first select from a the box of dies provided the set of dies to form required sign—say “A 1 2 3 4,” as indicated—and such number will be plainly visible by the large letters on the tops of the dies. The work is now placed and stretched on the work-table h under the clamping-frame h^2 . The operating foot-lever is depressed and through the pulley q and ratchet connections moves the work-table a half-revolution, during which movement the dies b first move successively into position over the work-table, and at the same time the cams $f' f' f'$ raise and release the hammer d in quick succession, so that it descends and strikes the dies as they come thereunder. At the same time the pawl i' is actuated and travels the work-table to give the printing the requisite spacing. The completion of the movement serves to bring the iron c forward and press same over the printed surface. The iron is allowed to remain the required time over the printed surface, and then the foot-lever is released and again operated to impart a further half-revolution to the table, so as to return the same and all parts to normal position ready for the next operation, the work being removed and new work placed on the table during the interval. The work-clamping device is adjusted to position in putting the work onto the table.

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

1. The improved apparatus for marking fabrics for laundry and other purposes comprising the combination of a die-case, interchangeable printing-dies in said case, a heated ironing device, a work-carrying table, means for inking the dies, means for bringing first the series of dies and then the heated ironing-surface onto the work on the work-table, substantially as and for the purpose set forth.

2. The improved apparatus for marking fabrics for laundry and other purposes comprising the combination of a die-case, interchangeable printing-dies in said case, a hammer device for actuating said dies, a heated ironing device, a work-carrying table, means for inking the dies, means for bringing first

the series of dies and then the heated ironing-surfaces onto the work on the work-table, means for actuating the hammer device, substantially as and for the purpose set forth.

5 3. The improved apparatus for marking fabrics for laundry and other purposes, comprising the combination of a table carrying interchangeable dies, a heated ironing-surface, a work-table arranged in the path of the
10 dies, means for actuating the table to bring the dies successively onto the work on the work-table, means for bringing the heated iron onto the printed surface after the dies have left the same, means for traveling the
15 work-table to space the printed matter, substantially as and for the purpose set forth.

4. The improved apparatus for marking fabrics for laundry and other purposes comprising the combination of a rotary table, interchangeable dies carried by said table, a
20 heated ironing-surface carried by said table, a work-table, a hammer device for moving said dies onto the work-table, means for rotating the die-table, means for actuating the
25 hammer device to move each die onto the work-table, means for moving the work-table to space the printing, means for heating the ironing-surface, substantially as and for the purpose set forth.

30 5. The improved apparatus for marking fabrics for laundry and other purposes, comprising the combination of a rotary table, interchangeable dies carried by said table, a heated ironing-surface carried by said table,
35 a work-table, a hammer device for moving said dies onto the work-table, a spring pressing said hammer to operative position, a series of cams on the rotary table which raise and release said hammer as the dies pass
40 thereunder in succession, means for rotating the die-table, means for moving the work-table to space the printing, means for heating the ironing device, substantially as and for the purpose set forth.

45 6. The improved apparatus for marking fabrics for laundry and other purposes and comprising the combination of a table carrying interchangeable dies, a heated ironing-surface, a work-table arranged in the path of
50 the dies, a hammer device for actuating the die successively, means for actuating the table to bring the dies successively over the work on the work-table, means for actuating the hammer device, means for bringing the
55 heated iron onto the printed surface after the dies have left the same, means for traveling the work-table to space the printed matter, substantially as and for the purpose set forth.

60 7. The improved apparatus for marking fabrics for laundry and other purposes comprising the combination of a rotary table, interchangeable dies carried by said table a heated ironing-surface carried by said table,
65 a burner, a pivoted hot-plate heated by said burner, a work-table, a hammer device for

moving said dies onto the work-table, means for rotating the die-table, means for actuating the hammer device to move each die onto the work-table, means for moving the work-table
70 to space the printing, means for bringing the heated ironing-surfaces alternately onto the work-table after the printing operation and then onto the pivoted hot-plate, substantially as and for the purpose set forth.

8. In apparatus for marking fabrics for
75 laundry and other purposes, the combination with an interchangeable die-case and a heated ironing-surface, of means for bringing the die-case and the ironing-surface alternately onto the work, substantially as and for the pur-
80 pose set forth.

9. In apparatus for marking fabrics for laundry and other purposes, the combination with a rotary table carrying interchangeable
85 printing-dies and an ironing-surface of a drum-like work-table having its periphery covered with resilient material, a spring-pressed frame for clamping the work onto the work-table, substantially as and for the pur-
90 pose set forth.

10. In apparatus for marking fabrics for laundry and other purposes, the combination with a rotary table carrying interchangeable
95 printing-dies and an ironing-surface of a drum-like work-table having its periphery covered with resilient material, a spring-pressed frame for clamping the work onto the work-table, means for rotating the work-car-
100 rying drum in one direction only, means for adjusting the clamping-frame into its position in the periphery of the drum, all substantially as and for the purpose set forth.

11. The improved apparatus for marking fabrics for laundry and other purposes comprising the combination of, a rotary table, in-
105 terchangeable dies carried by said table, a heated ironing-surface carried by said table, a work-table, a hammer device for moving said dies onto the work-table, a treadle with band-wheel for operating said die-table, a one-direction clutch mechanism between the band-
110 wheel and the die-table, means for actuating the hammer device to move each die onto the work-table, means for moving the work-table to space the printing, means for heating the
115 ironing-surface, substantially as and for the purpose set forth.

12. In an apparatus for marking fabrics for laundry and other purposes which comprises a series of dies and a heated ironing-surface
120 moved alternately onto the work, the means for heating the ironing-surface comprising a hot-plate pivoted at one side so as to be raised into contact by the ironing-surface passing thereover, substantially as and for the pur-
125 pose set forth.

13. The improved apparatus for marking fabrics for laundry and other purposes comprising the combination of a die-case, inter-
130 changeable printing-dies having enlarged

heads with the sign on the lower part of the
die conspicuously displayed thereon, a heated
ironing device, a work-carrying table, means
for inking the dies, means for bringing first
5 the series of dies and then the heated ironing-
surface onto the work on the work-table, sub-
stantially as and for the purpose set forth.

In witness whereof I have hereunto signed
my name in the presence of two subscribing
witnesses.

DAVID ANDERSON.

Witnesses:

HENRY A. PRYOR,

ALFRED B. CAMPBELL.