(No Model.) 2 Sheets—Sheet 1.

W. K. EDGAR & W. L. SEBRING.

NUMBERING STAMP FOR CAR SEALS.

No. 560,349. Patented May 19, 1896.

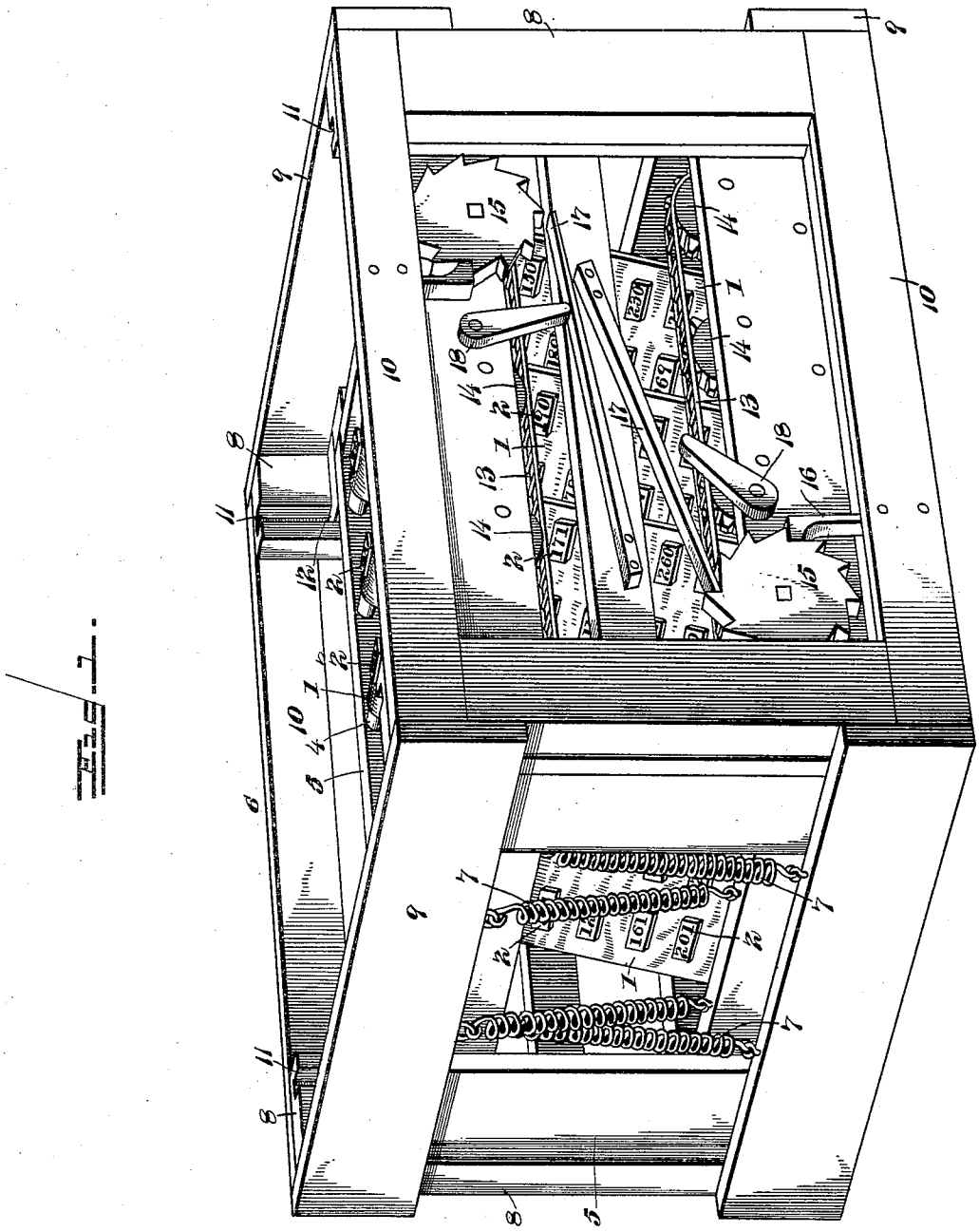

Fig. 1.

Witnesses

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(No Model.) 2 Sheets—Sheet 2.

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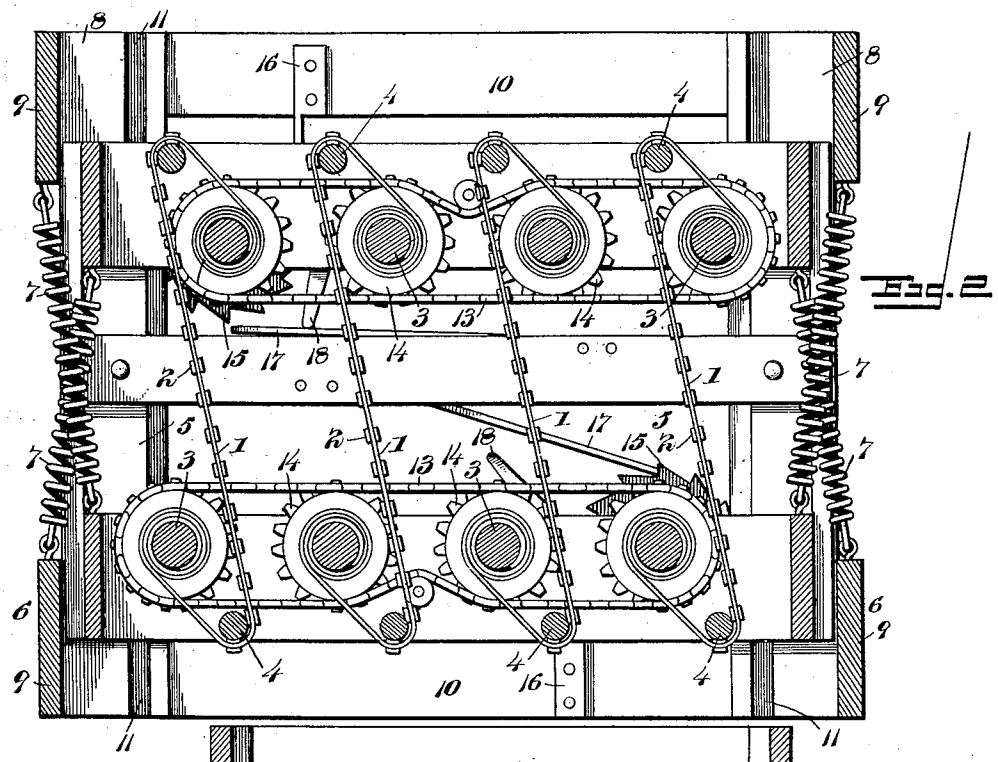

Fig. 2.

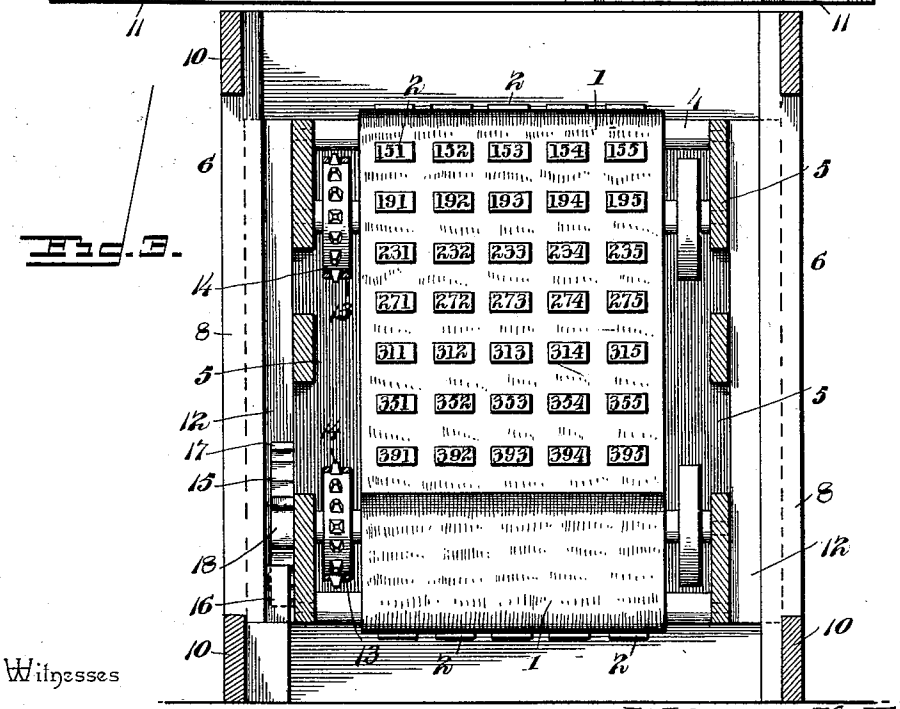

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM K. EDGAR AND WILLIAM L. SEBRING, OF COLORADO SPRINGS, COLORADO.

NUMBERING-STAMP FOR CAR-SEALS.

SPECIFICATION forming part of Letters Patent No. 560,349, dated May 19, 1896.

Application filed October 8, 1895. Serial No. 565,053. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM K. EDGAR and WILLIAM L. SEBRING, citizens of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Numbering-Stamp for Car-Seals, of which the following is a specification.

Our invention relates to a numbering-stamp designed especially for numbering metallic car-seals, and the object in view is to provide means whereby the sand molds may be provided with the impression of a number to avoid the necessity of having the patterns provided with consecutive numbers, the particular car-seal in connection with which said numbering is of special advantage being that shown and described in Patent No. 535,026, granted on March 5, 1895, to William L. Sebring and William K. Edgar; furthermore, to provide a marking apparatus by means of which a plurality of impressions may be made simultaneously, all of the impressions being different, or being of different members, and also to provide means for advancing or changing the numbers successively as the apparatus is used, whereby the impressions upon the molds are consecutively arranged.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a marking or stamping device embodying our invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse section.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the drawings we have shown an embodiment of the essential features of our invention, such essential features residing in continuous die-carriers, each provided with series of alining die-faces and adapted to be successively exposed at the printing or impression point, any desired number of carriers being employed and mounted for simultaneous operation, and means for feeding the carriers simultaneously and by a step-by-step movement to expose different lines of dies and prevent the duplication of the impressions.

In practice the continuous carriers 1 are preferably constructed of flexible material, such as canvas or its equivalent, and the die-faces 2, which are arranged in lines or series upon the carriers, may be of metal or rubber, as found more desirable, the carriers being secured at their extremities to drums 3 and extending at intermediate points over idle guide-rollers 4. The outer sides of the guide-rollers are arranged in a common plane and determine the printing plane of the apparatus, the die-faces which occupy positions at the outer sides of said rollers being those which are exposed for operation, or being those which at any given time occupy positions in the printing plane. Said drums and guide-rollers are preferably mounted in the carriage 5, which is mounted for reciprocation in a plane perpendicular to the printing plane in a suitable guide-frame 6. The carriage is normally held in a retracted position by means of springs 7, and when it is desired to make an impression the carriage is depressed to bring the die-faces upon the exposed sides of the guide-rollers in contact with the surface to receive the impression.

In the construction illustrated in the drawings the frame is of simple form, having corner-standards 8 connected at their extremities by the horizontal end and side bars 9 and 10, respectively, the inner surfaces of the standards being grooved, as shown at 11, to form guides in which operate webs 12 on the sides of the carriage 5. It is also desirable in a device of this class to provide for reversing the carriage, whereby when the endless die-carriers have been advanced to the limit of their movement in one direction the apparatus may be reversed and the numbering continued without turning the carriers back to the drums upon which they were first reeled. Hence both sides of the carriers are provided with die-faces, and guide-rollers are arranged with their outer sides flush with the upper and lower edges of the carriage, and also duplicate sets of return or retracting springs 7 are employed whereby the carriage is held in a position between the planes of the upper and the lower edges of the support-

ing and guiding frame and is adapted to be moved in either direction from this intermediate point of rest.

In connection with the above-described mechanism, we also employ means for automatically feeding the die-carriers, whereby the operation of depressing the carriage to form an impression causes the movement of the carriers to bring different die-faces into the printing plane. The mechanism shown in the drawings for accomplishing this object includes endless belts or chains 13, traversing spur or chain wheels 14 on the extremities of the drums, a ratchet-wheel 15 secured to the extremity of one of the drums in each series, an operating-pawl 16 secured to the frame with its free end in operative relation with said ratchet-wheel to cause the rotation thereof in the direction indicated by the arrow when the carriage is depressed, and holding-pawls 17 secured to the carriage and also arranged in operative relation with the ratchet-wheels. The feeding of the carriers is accomplished by the ratchet mechanism connected with the lower set of drums, or the set contiguous to the plane of the surface which is to receive the impression, and hence in order to remove the stop-pawl 17 of the other ratchet from engagement with the ratchet, and thereby allow the upper set of drums to rotate in the opposite direction or unwind the carriers, we employ pivotal trip-arms 18, pivoted to the carriage and adapted to be swung into contact with the stop-pawl to be disengaged, as shown in Fig. 1.

As above mentioned, the special function of the stamping apparatus forming the subject-matter of our invention is to mark sand molds used in the casting of car-seals or other equivalent devices, when it is necessary to change the number of the impression or the character thereof, and apply the impressions consecutively.

After the sand-molds have been formed by means of suitable patterns, as in the usual practice, said molds are arranged with their faces in a common plane, and the stamping apparatus is placed thereover and operated to bring the die-faces into contact with the molds. In the construction illustrated the carriage is provided with four flexible carriers, and the width of each carrier is sufficient to arrange five die-faces in the printing-plane at one time, and hence it will be seen that one operation of an apparatus constructed as shown in the drawings will produce twenty impressions, or will mark twenty molds with as many different numbers. In practice we employ carriers having ten or more die-faces adapted to be simultaneously in theprinting-plane, and hence forty or more impressions may be made with one operation of the device. In other words, the number of die-faces on each carrier which may be exposed at the printing-point at one time is not material to the essence of our invention, but may be varied as found desirable in connection with the use to which the invention is applied.

It will be understood that the utility of the device above described is not limited to the marking of sand molds for seals, but may be applied to other purposes where it is required, as in the case above named, to produce a plurality of different impressions in consecutive order without the risk of duplication and without materially increasing the cost of manufacture of the article.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described our invention, what we claim is—

1. In a stamping or marking apparatus, the combination with a supporting-frame, of a reciprocatory carriage mounted for movement in either direction from an intermediate point of rest, continuous flexible die-carriers traversing suitable guide-rollers on the carriage and attached at their extremities to drums, all of the carriers being arranged at one point in a common printing plane, and feeding mechanism for imparting a step-by-step forward movement in either direction to the drums to change the points of exposure of the carriers, substantially as specified.

2. In a stamping or marking apparatus, the combination of a guide-frame, a carriage mounted for reciprocation in the guide-frame, oppositely-disposed retraction-springs for maintaining the carriage midway between its limits of movement in opposite directions, drums mounted upon the carriage, continuous flexible die-carriers secured at their extremities to the drums, guide-rollers traversed by the carriers and arranged to hold the latter at given points in common printing planes at opposite sides of the carriage, and feeding mechanism for imparting a step-by-step movement in either direction to the drums, substantially as specified.

3. In a stamping or marking apparatus, the combination with a reversible guiding-frame, of a carriage mounted therein, resilient means for maintaining the carriage at an intermediate point of rest, continuous die-carriers mounted upon the carriage and arranged at opposite sides thereof in printing planes, and automatic means for adjusting the carriers in opposite directions to bring different portions of their surfaces successively in the printing planes, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM K. EDGAR.
WILLIAM L. SEBRING.

Witnesses:
DANIEL P. CATHCART,
EDWARD B. KENNEDY.