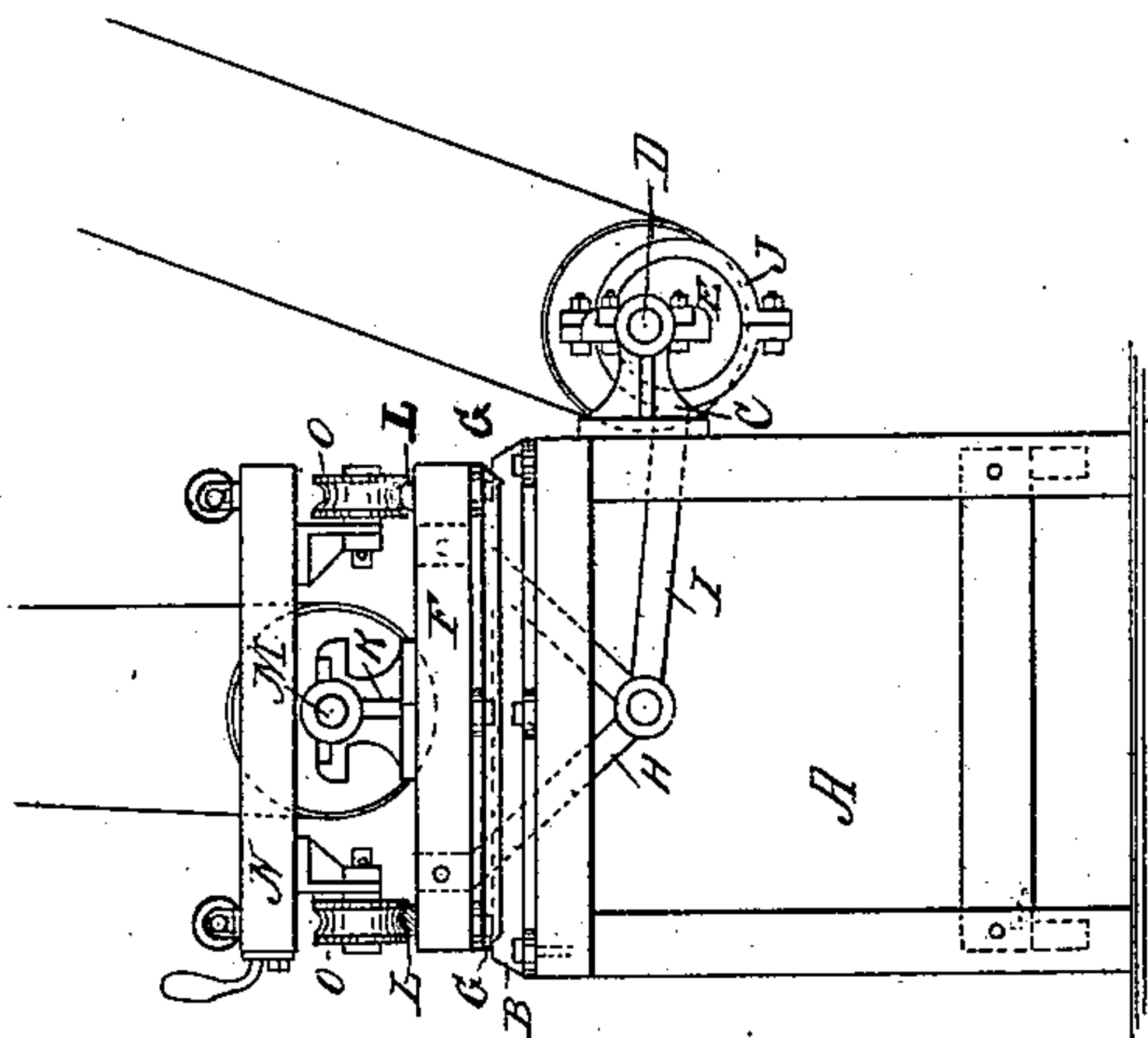
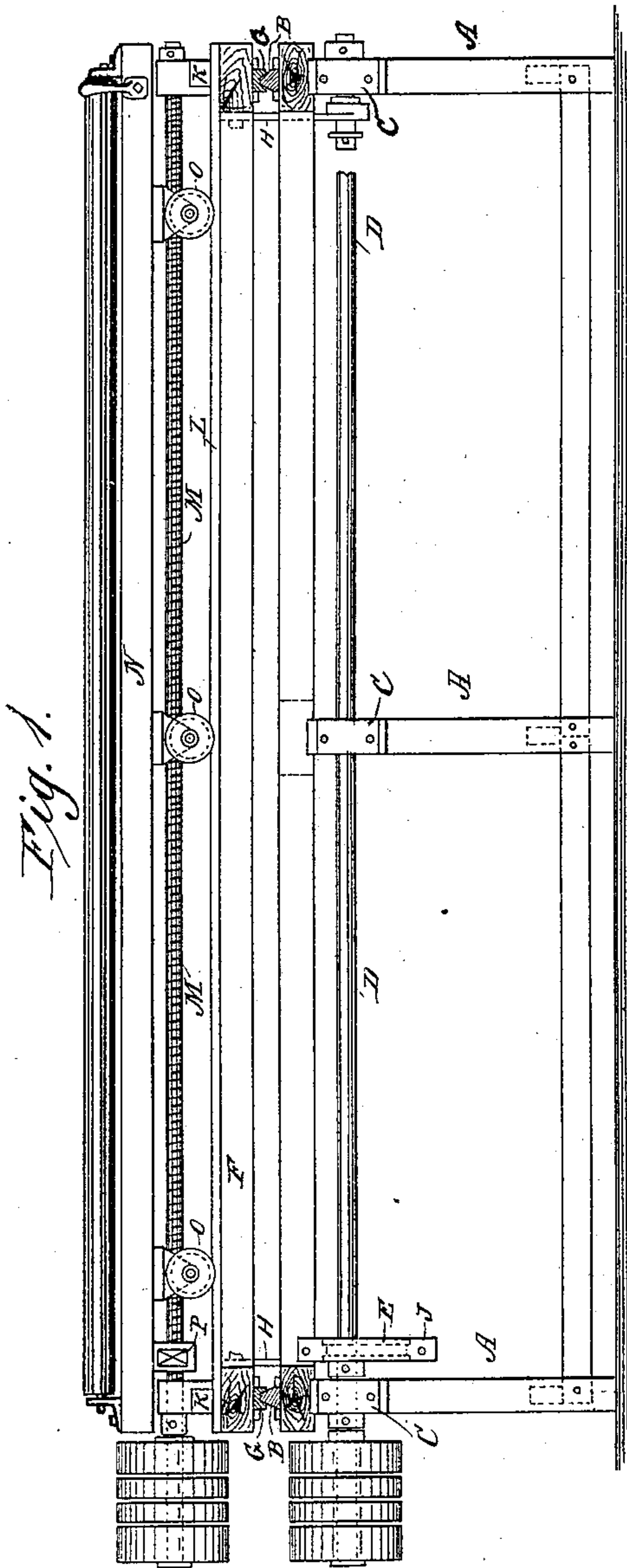


(No Model.)

M. H. MARCUS.
QUILTING MACHINE.

No. 337,178.

Patented Mar. 2, 1886.



WITNESSES:

W. W. Hollingsworth
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UNITED STATES PATENT OFFICE.

MARTIN H. MARCUS, OF BALTIMORE, MARYLAND.

QUILTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 337,178, dated March 2, 1886.

Application filed October 19, 1885. Serial No. 180,245. (No model.)

To all whom it may concern:

Be it known that I, MARTIN H. MARCUS, of Baltimore city and State of Maryland, have invented a new and useful Improvement in
5 Quilting-Machines, of which the following is a description.

This invention is an improvement in quilting-machines, and in that class of such machines in which the quilt is moved under the
10 needle of a sewing-machine, and is at the same time moved transversely to give the desired pattern.

The invention has for its object to provide a machine of this class which will be simple
15 in construction and will form the pattern clearly and accurately; to which end the invention consists in the novel constructions, combinations, and arrangements of parts hereinafter described and claimed.

20 In the accompanying drawings, Fig. 1 is a side elevation, and Fig. 2 an end elevation, of a machine constructed according to my invention.

My machine is shown as composed of a stand
25 or supporting-frame, an intermediate frame mounted and movable laterally on the stand, the quilt-carriage movable longitudinally on the intermediate frame, and the mechanism for actuating the intermediate frame and the
30 carriage through connection with a suitable drive-power.

The stand A is provided on its upper side at its opposite ends with transverse rails B, and it also has usually at one side brackets
35 C, providing bearings for the cam-shaft D, on which, near its ends, are fixed the eccentric-cams E. The intermediate frame, F, is provided on its under side with guide-rails G, which fit and are movable upon the transverse rails
40 of the stand. This frame F also has depending brackets H, which project to about a common horizontal plane with the cam-shaft. Pitmen I connect at one end with the lower ends of the brackets H, and have their other ends
45 formed with eccentric straps or rings J, fitted over the eccentric-cams E. By means of the depending brackets H, I am able to form the connection with the intermediate frame in a horizontal plane with the eccentric-shaft, so
50 that there is avoided any lifting tendency on

the intermediate frame in the thrust of the pitmen.

As the cam-shaft is revolved by suitable connection with the motive power, the intermediate frame will be moved transversely and
55 reciprocally back and forth on the stand. By the eccentric it will be seen the frame is moved forward a full stroke, and when such stroke is completed the eccentric at once commences to retract, the change from one movement to
60 the other being abrupt. By reason of this abrupt reversal of motions it will be seen that the corners of a diamond are formed at points and the lines of stitching formed in the forward and backward movement of the frame
65 will intersect at angles, as is desired.

On the intermediate frame I mount pedestals K, having bearings in which are journaled the feed-screw for moving the quilt-carriage. I also provide the upper side of the
70 frame F with longitudinal rails L. A screw, M, is journaled in the pedestals K, in which it freely revolves, but is held from any longitudinal movement.

On the intermediate frame I mount the quilt-carriage N, which may have any suitable quilt-
75 securing devices. This carriage is movable longitudinally on the intermediate frame, being usually provided with rollers O, bearing on the rails L. A block or nut, P, is secured to and depends from the carriage. I
80 form this block with a threaded opening fitted onto the feed-screw, by which construction the carriage will be moved longitudinally as the screw is revolved. The feed-screw and
85 cam-shaft may each have a pair of drive and idle pulleys, and be connected by twist and straight belts with the line-shaft, suitable shifters being provided to throw either one of the drive-belts on its drive-pulley to revolve
90 the shaft in either direction.

The operation is simple and will be easily understood by those skilled in the art. As the screw feeds the carriage longitudinally in an even and uniform movement, such carriage is by its connection with the intermediate
95 frame, moved laterally, the quilt being consequently directed diagonally under the needle.

The cam or eccentric is used in forming quilts 100

or comforts in diamond-patterns, one half of the diamonds of a longitudinal series being formed in one direction of movement of the carriage and the other half in the other or reverse movement of such carriage.

To change the pattern from diamond to other design it will be necessary to change the form of the cam.

The formation of other designs might be effected by forming cam-grooves of appropriate form in the side of a disk on the cam-shaft, and providing the pitman with a stud or arm projecting into such groove; but I prefer the construction as shown and before described.

Having thus described my invention, what I claim as new is—

1. In a quilting-machine, the combination of the stand, the intermediate frame mounted and movable transversely on said stand, the carriage supported and movable longitudinally on the intermediate frame, the cam-shaft extended in the direction of movement of the carriage, and pitmen connecting the intermediate frame and the cam-shaft, substantially as set forth.

2. The combination, in a quilting-machine, with the stand and the intermediate frame

and carriage, of the shaft journaled to the stand and extended at right angles to the direction of movement of the intermediate frame, the eccentric-disks secured on said shaft, and pitmen connected at one end with the intermediate frame, and provided at their other ends with straps or rings encircling the eccentrics, all arranged and operating substantially as and for the purposes specified.

3. The quilting-machine herein described, comprising the stand, having side brackets, C, the shaft journaled in said brackets and having eccentric-cams E, the intermediate frame placed and movable laterally on the stand, brackets H, depending from said frame to a horizontal plane with the cam-shaft, the pitmen connecting such brackets with the eccentric-cams, the quilting-carriage placed and movable longitudinally on the intermediate frame, and the feed-screw journaled to the intermediate frame and connected with the quilt-carriage, all arranged and operating substantially as set forth.

MARTIN H. MARCUS.

Witnesses:

J. C. LOWENBACH,
MURRAY HANSON.