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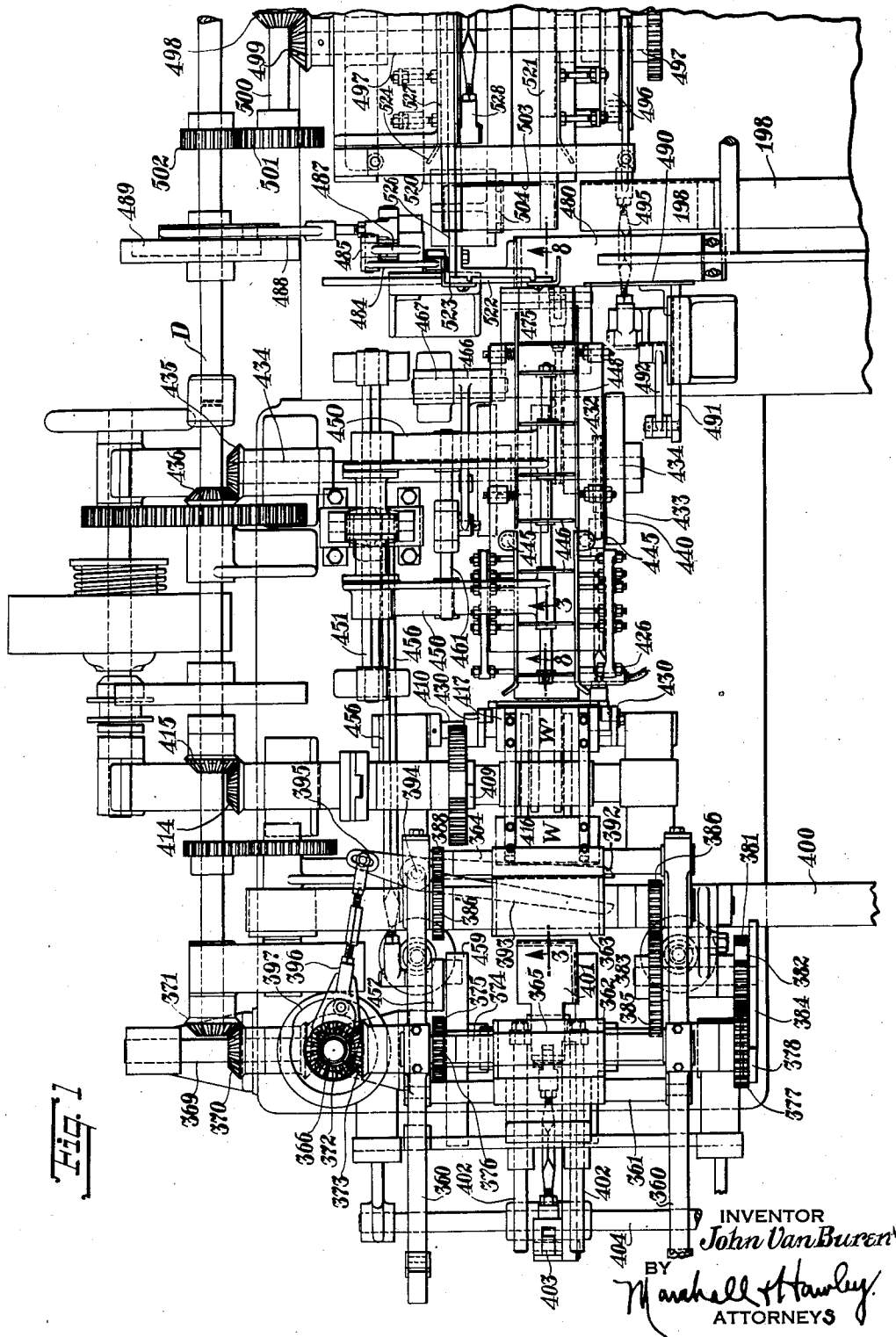
J. VAN BUREN

1,993,389

MACHINE FOR WRAPPING AND BOXING ARTICLES

Filed July 20, 1933

7 Sheets-Sheet 1



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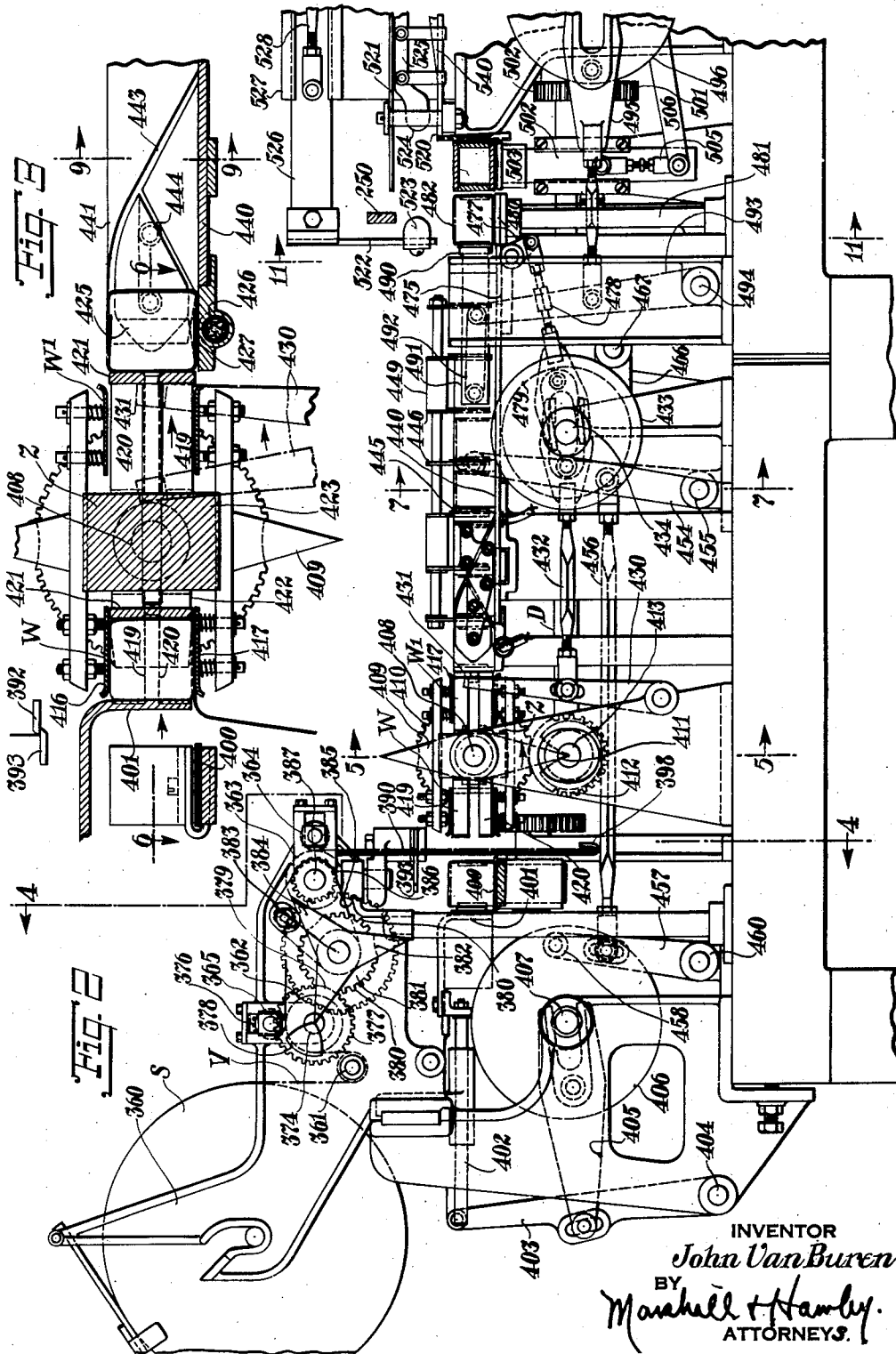
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MACHINE FOR WRAPPING AND BOXING ARTICLES

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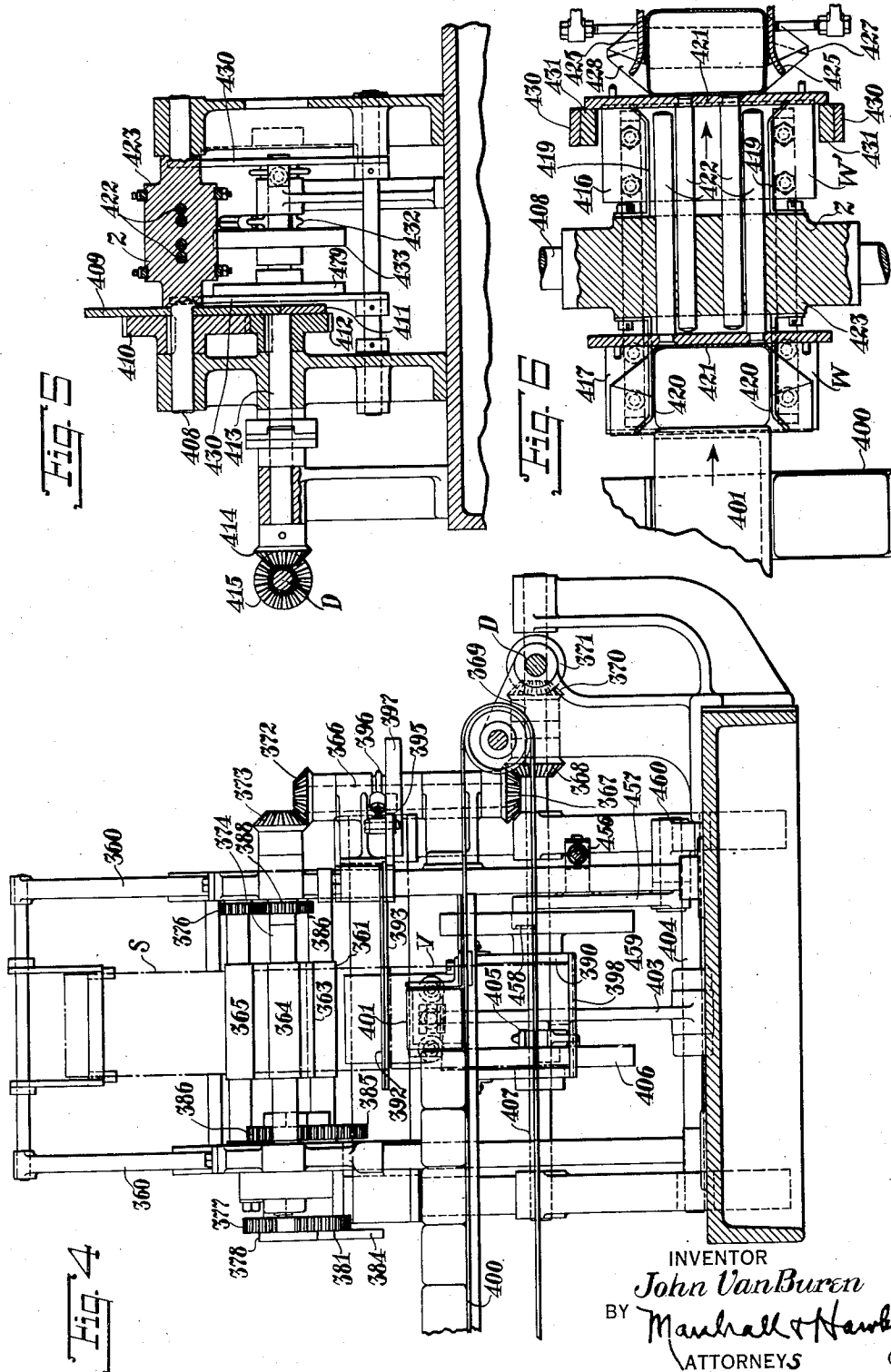
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7 Sheets-Sheet 3



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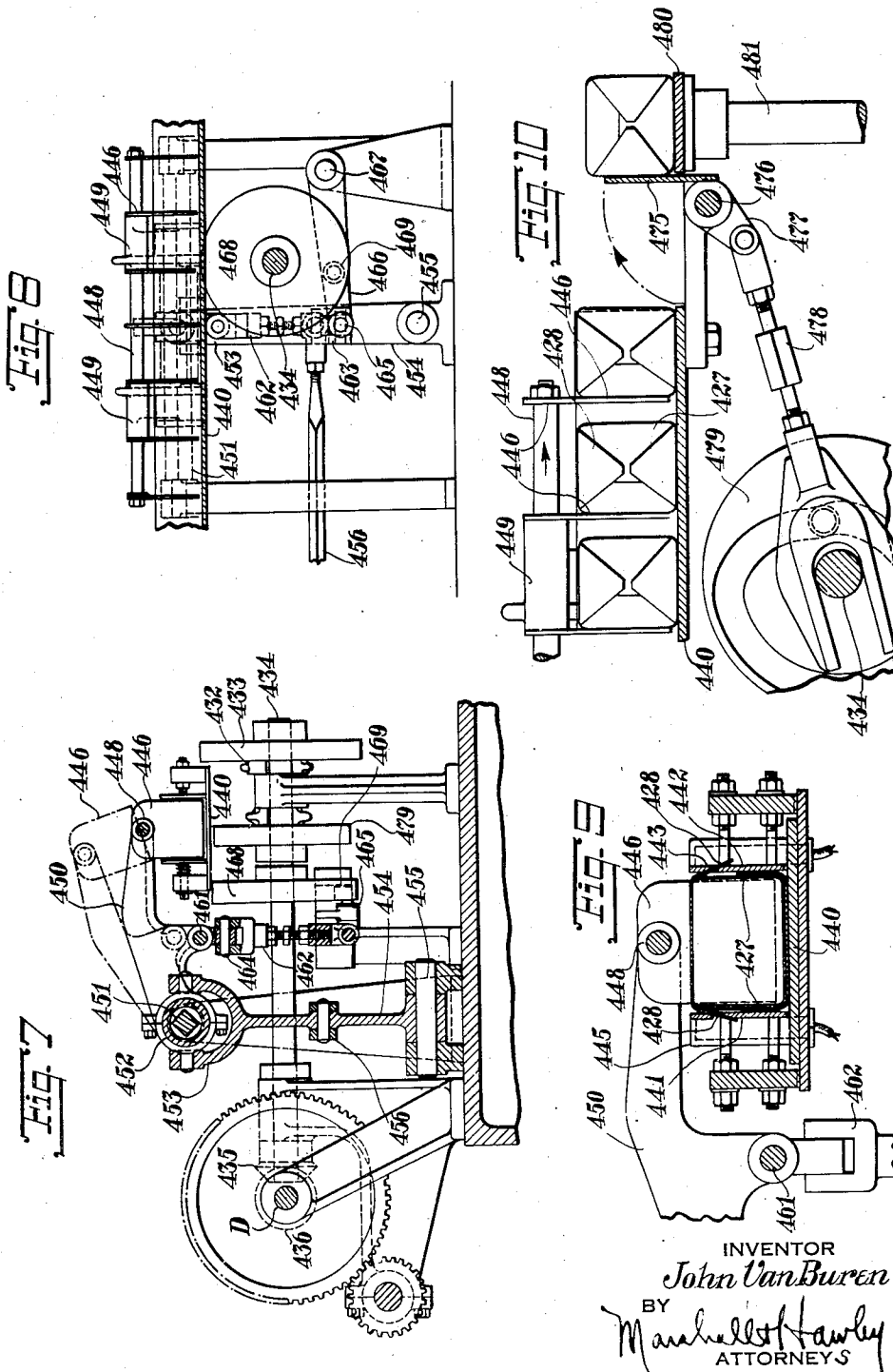
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MACHINE FOR WRAPPING AND BOXING ARTICLES

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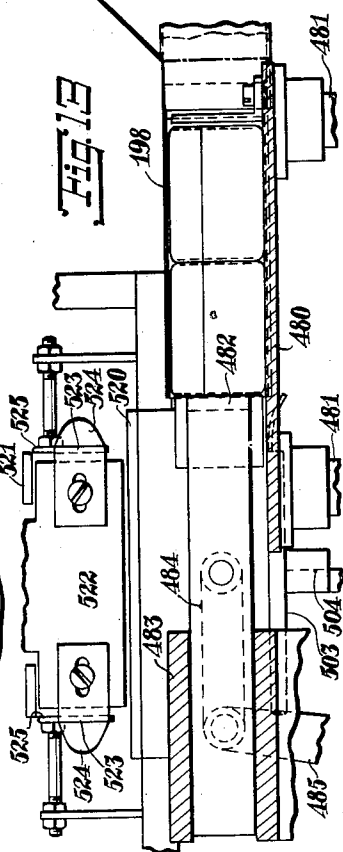
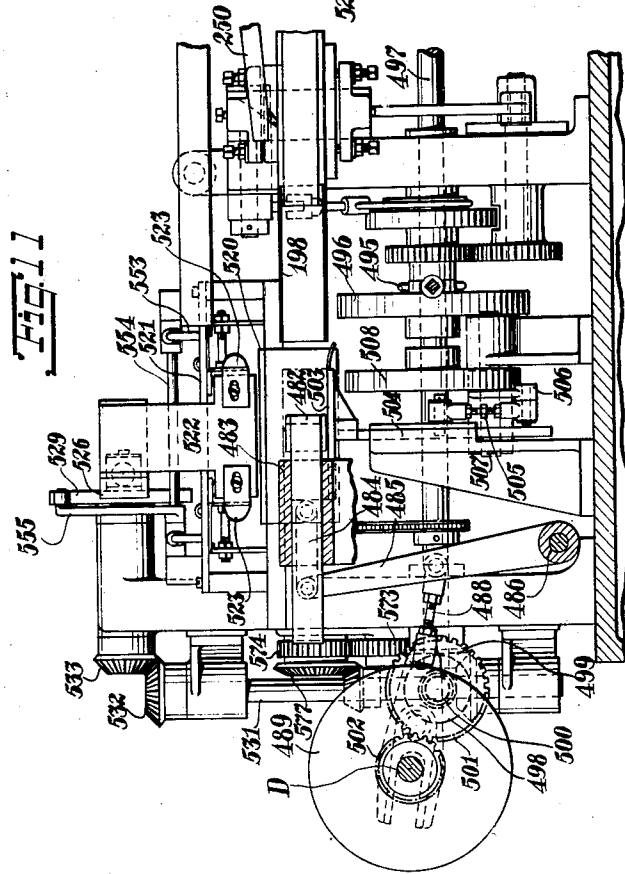
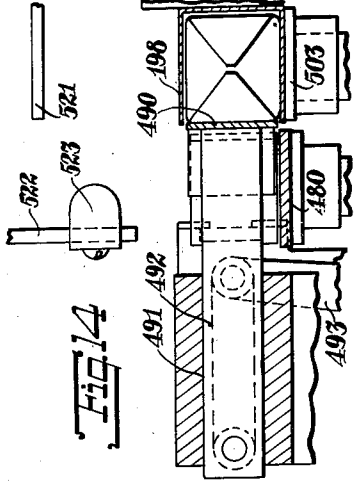
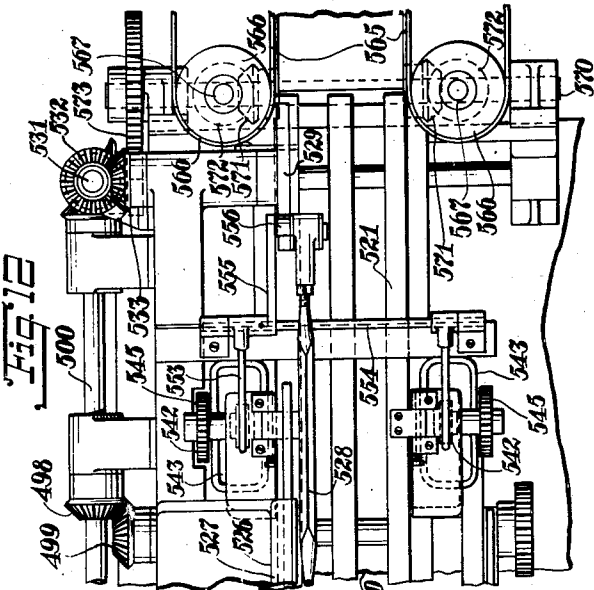
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MACHINE FOR WRAPPING AND BOXING ARTICLES

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7 Sheets-Sheet 5



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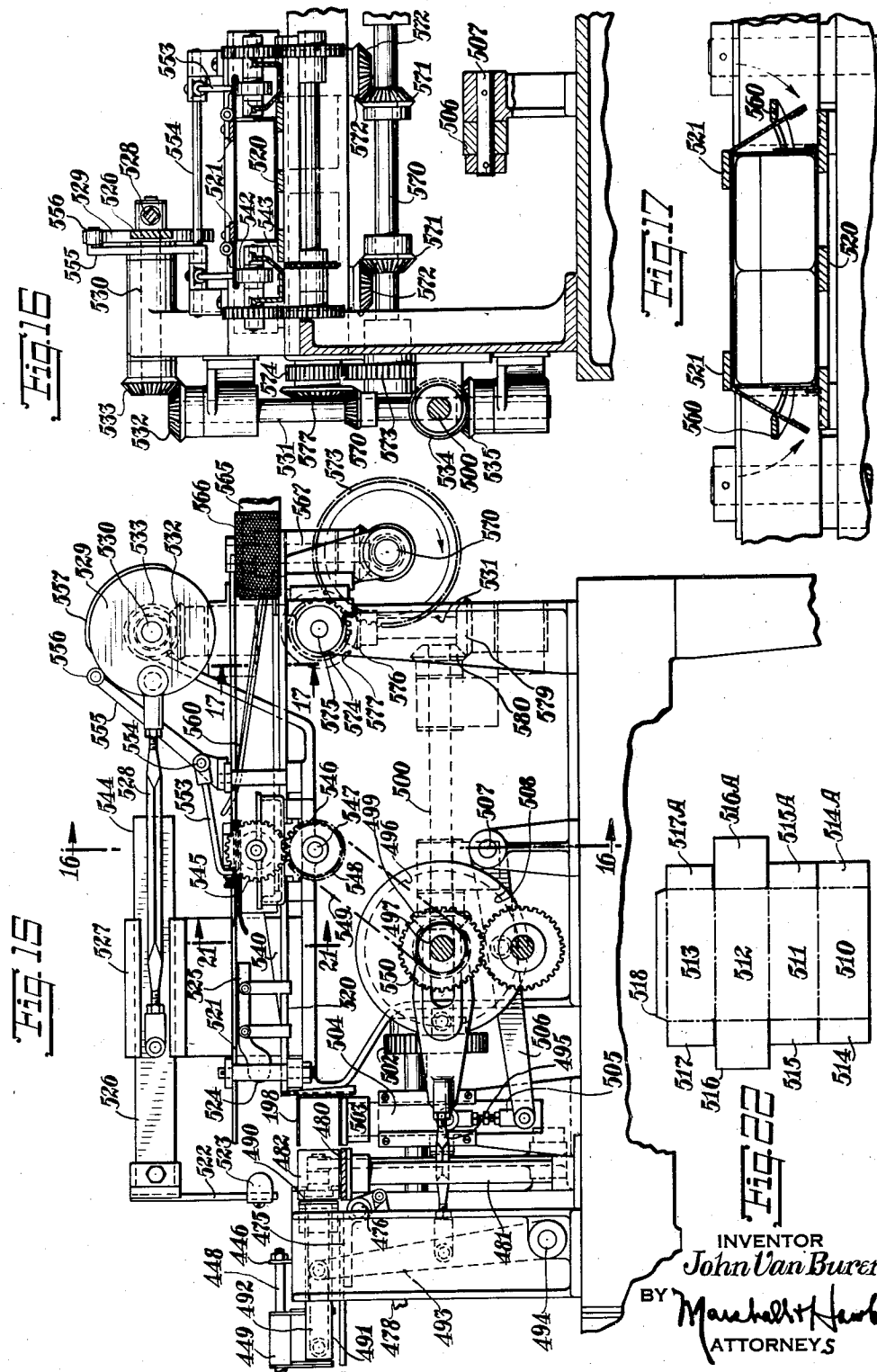
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MACHINE FOR WRAPPING AND BOXING ARTICLES

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7 Sheets-Sheet 6



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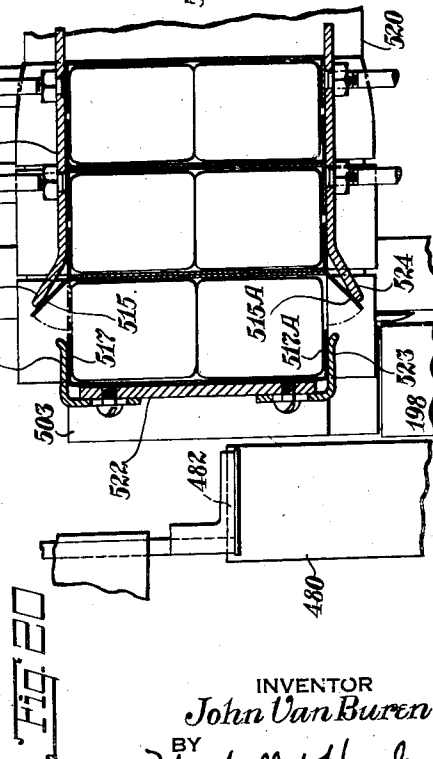
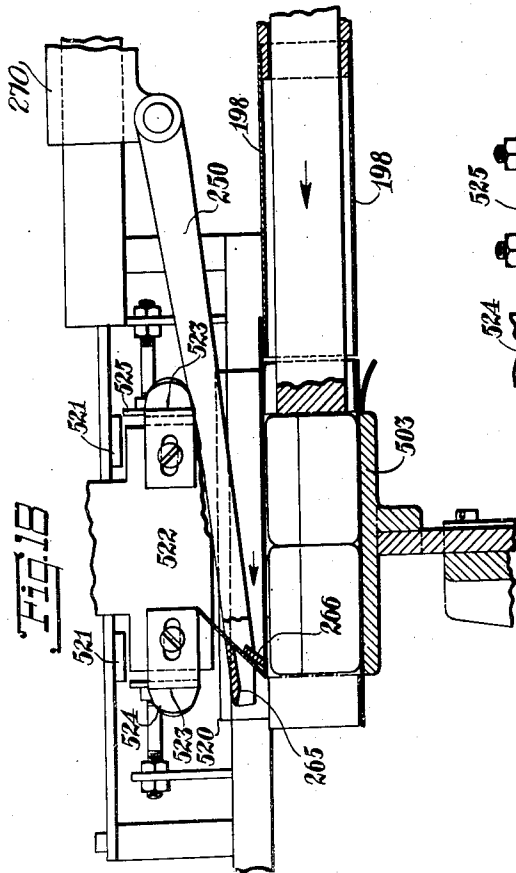
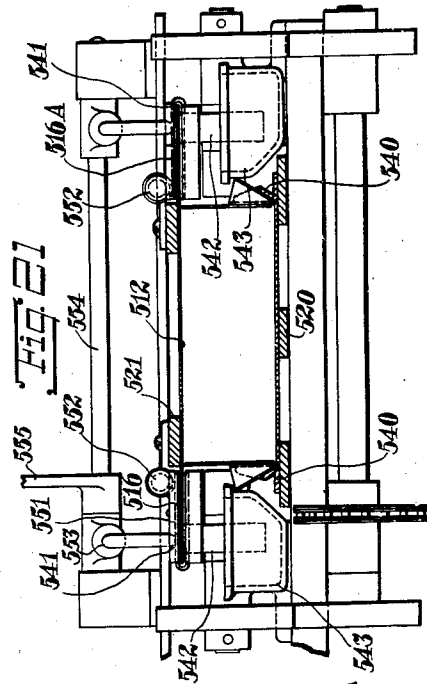
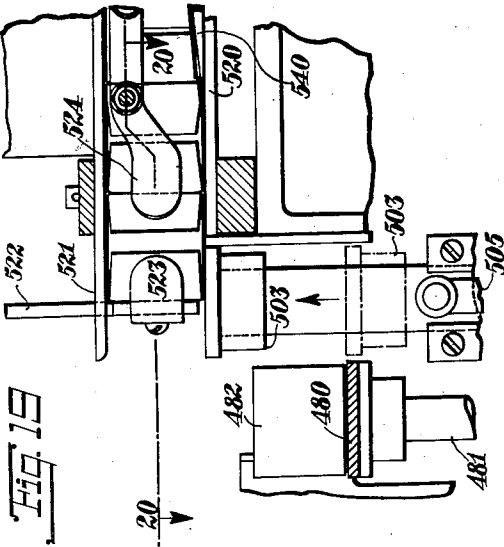
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MACHINE FOR WRAPPING AND BOXING ARTICLES

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7 Sheets-Sheet 7



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UNITED STATES PATENT OFFICE

1,993,389

MACHINE FOR WRAPPING AND BOXING ARTICLES

John Van Buren, Brooklyn, N. Y.

Application July 20, 1933, Serial No. 681,233
In Great Britain June 7, 1933

9 Claims. (Cl. 93—6)

This invention relates to a machine for wrapping and boxing articles, such as cakes of soap.

At the present time it is customary to enclose cakes of soap in wrappers and in some cases the wrapped cakes are assembled in boxes. When this is done the cakes are wrapped in the wrapping machine and are then boxed in a separate machine.

This invention has for its object to provide a machine so constructed and arranged that the articles will be wrapped and the wrapped articles will be boxed in a single machine.

Another object of the invention is to provide a machine so constructed and arranged as to feed and wrap the articles, fold blanks into boxes, enclose the wrapped articles in the boxes and close the boxes.

Further objects of the invention will appear from the following specification taken in connection with the drawings which form a part of this application and in which

Fig. 1 is a top plan view showing cake wrapping, feeding and boxing mechanism embodying the invention;

Fig. 2 is an elevational view of the structure shown in Fig. 1;

Fig. 3 is a sectional elevation of the cake wrapping mechanism, this view being taken substantially on line 3—3 of Fig. 1 and illustrating the construction on a large scale;

Fig. 4 is a sectional elevation taken substantially on line 4—4 of Fig. 2;

Fig. 5 is a sectional elevation taken substantially on line 5—5 of Fig. 2;

Fig. 6 is a horizontal sectional elevation taken substantially on line 6—6 of Fig. 3;

Fig. 7 is a sectional elevation of the cake feeding mechanism taken substantially on line 7—7 of Fig. 2;

Fig. 8 is a sectional elevation taken substantially on line 8—8 of Fig. 1;

Fig. 9 is a transverse sectional elevation of the mechanism for folding the wrapper around the cake and the means for feeding the cake and wrapper;

Fig. 10 is an elevational view partly in section showing the mechanism for feeding the wrapped cakes and the means for positioning the wrapped cakes on a support from which they are deposited in the carton support;

Fig. 11 is a vertical sectional elevation taken substantially on line 11—11 of Fig. 2;

Fig. 12 is a top plan view of the mechanism for closing and discharging the filled cartons;

Fig. 13 is a detail sectional elevation showing

the wrapped cakes in position to be fed into the U-shaped carton support;

Fig. 14 is a sectional elevation taken at right angles to Fig. 13 and showing the means for feeding the cakes into the U-shaped support;

Fig. 15 is an elevational view illustrating the carton closing mechanism;

Figs. 16 and 17 are vertical sectional elevations taken substantially on line 16—16 and 17—17 of Fig. 15;

Fig. 18 is an elevational view partly in section showing the means for feeding the cartons and cakes from the U-shaped guide to the vertically movable support from which they are discharged into the carton closing mechanism;

Fig. 19 is an elevational view taken at right angles to Fig. 18;

Fig. 20 is a horizontal sectional view taken substantially on line 20—20 of Fig. 19;

Fig. 21 is a vertical sectional elevation on an enlarged scale taken substantially on line 21—21 of Fig. 15; and

Fig. 22 is a plan view of the carton blank.

The invention briefly described consists of a machine comprising a plurality of successively acting mechanisms for enclosing a plurality of articles, such as cakes of soap in wrappers, placing the wrapped cakes in a box and closing the box or carton. These mechanisms include means for feeding the wrappers and for folding the wrappers around the articles, means for feeding tubes or open ended cartons over the articles, and means for closing the open ends of the cartons after the wrapped articles have been placed therein. In the particular embodiment of the invention illustrated the articles are fed by an endless conveyor, the wrappers are fed intermittently and the wrappers and articles are successively placed in folding pockets and discharged from the pockets. The open ended tubes or cartons are fed over the wrapped articles and the cartons are closed over the wrapped articles, a plurality of articles being positioned in each carton.

Further details of the invention will appear from the following description.

Figs. 1 to 22 inclusive illustrate an embodiment of the invention including cake wrapping mechanism, feeding mechanism for the wrapped cakes and mechanism whereby two cakes can be enclosed in each carton and the cartons can thereafter be closed. The structures will be described under separate headings.

Wrapper feeding mechanism

This mechanism is illustrated particularly in

Figs. 1, 2 and 3. The wrapping material is wound on a supply roll S supported in brackets 360. From the supply roll S the sheet of wrapping material V, which is preferably waxed paper, is led under an idler roll 361, upwardly over a roll 362 and thence forwardly and downwardly between a pair of feed rolls 363 and 364. A feed roll 365 coacts with the roll 362 in feeding the material, these rolls being driven continuously and the feed rolls 363 and 364 being driven intermittently.

The feeding mechanism described is driven from a drive shaft D in the following manner: The shaft D is connected to drive a vertical shaft 366 through a bevel gear connection 367, 368 to a shaft 369 which in turn is driven by a bevel gear connection 370, 371 to the shaft D.

The vertical shaft 366 has a bevel gear 372 at the upper end thereof which meshes with a gear 373 connected to the shaft 374 on which the roller 362 is mounted. The shaft 374 has mounted on one end thereof a gear 375 which meshes with a gear 376 carried by the shaft on which the roller 365 is mounted. At the other end thereof the shaft 374 has mounted thereon a gear 377 which has secured to one face thereof a lug 378. The gear 377 is interrupted, having between the interrupted portions curved blank portions 379. The geared portions mesh with gear teeth 380 carried by an interrupted gear 381 having concave peripheral portions 382 which coact with the curved portions 379. The gear 381 is mounted on a shaft 383 on which is also mounted a star wheel 384 which coacts with the lug 378. The lug 378, star wheel 384 and interrupted gears 377 and 381 coact to give the well known Geneva movement to the shaft 383. This shaft also has mounted thereon a gear 385 which intermittently drives a gear 386 on the shaft 387 of roller 363. A gear 386' also mounted on shaft 387 meshes with a gear 388 on the shaft of the roller 364.

From the foregoing description it will be clear that the feed rollers 362 and 365 operate continuously and the feed rollers 363 and 364 operate intermittently to feed the strip V of wrapping paper downwardly.

Cake feed and wrapper folding mechanism

The strip of paper is fed downwardly by the rolls 363, 364 between suitable guiding members 390 and is severed by cutting mechanism comprising a pair of knives 392 and 393 shown particularly in Figs. 1, 2 and 3. The blade 392 is stationary and the blade 393 is pivoted at 394 and has beyond its pivot an arm 395 which is connected to and oscillated by a pitman 396 operated by a cam 397 carried by the shaft 366. The operation of the cam is so timed that when a strip has been fed downwardly between the guiding members 390 the knives will be operated to sever the strip. The guiding members are curved upwardly at the bottom, as shown at 398 in Fig. 2 to support the severed sheet.

The cakes of soap or other material are fed into the machine continuously by a belt 400, the delivery end of the belt crossing the path of movement of the paper and being disposed in the rear thereof, as shown in Fig. 2. When each cake reaches a position in the rear of a severed sheet of wrapping material or paper it is fed forwardly by a plunger 401 which is carried by a plunger rod 402 operated by a lever 403 which is oscillated on its pivot 404 by an operating arm or pitman 405 which is driven by a cam 406 mounted on a

shaft 407 which forms an extension of the shaft 369 shown in Fig. 4. The cake and wrapper are fed by the plunger 401 into one of the pockets W or W' of a rotatable tumbler block Z which is intermittently rotated and is carried by a shaft 408. The shaft 408 is intermittently rotated by a Geneva drive consisting of a star wheel 409, an interrupted gear 410 connected to the shaft and a drive member 411 which coacts with the star wheel and an interrupted gear 412, these two parts being carried by a shaft 413 which is driven by a gear connection 414 and 415 from the shaft D.

The tumbler block construction is illustrated particularly in Fig. 3 wherein it will be seen that the pockets W and W' are disposed in alignment or, in other words, 180° apart. Each pocket has top and bottom plates 416 and 417 and end walls, each of which consist of a pair of separated plates 419 and 420.

The inner end of the pocket in each case is formed by a plate 421, these plates being carried by rods 422 which are slidably mounted in a block 423 carried by the shaft 408. The rods 422 are so fitted in the block that they will be held in any position therein by friction.

The plunger 401 forces a cake and wrapper into the pocket disposed opposite the plunger, as for instance, into pocket W in Fig. 3. As the cake and wrapper are forced into the pocket the wrapper will be folded around three sides of the cake and the movement of these parts into the pocket will force the plate 421 inwardly toward the axis of rotation of the tumbler block. During this time the cake which has been positioned in the pocket W' is being forced out of the pocket into the mechanism which completes the folding of the wrapper around the cake.

As the cake and wrapper are forced into the plunger W in Fig. 3 tucks will be placed in the ends of the wrapper adjacent the inner end of the cake and after the tumbler block has been rotated and the cake and wrapper are ejected from the pocket W' the opposite end tucks will be placed in the wrapper by the receiving ends 425 of the side walls of the folding mechanism. The wrapper will then be wrapped entirely around the cake, the ends of the wrapper overlapping beneath the cake and being sealed by a heater 426 which is positioned at the bottom of the receiving end of the folding mechanism. The wax of the wax paper will melt as the cake and wrapper are passing over the heater and cause the ends of the wrapper to be secured to each other. The wrapper then has outwardly extending tabs 427 and 428 at the upper and lower edges of the ends of the cake. These tabs will project laterally from the ends of the cake in alignment with the upper and lower surfaces thereof.

In order to insure the ejection of the wrapped cake from the pocket W' in Fig. 3 and the correct positioning of the cake on the heater 426 which forms the receiving end of the folding mechanisms, a lever 430 is provided with a lug 431 which is adapted to be positioned behind the plate 421 in the pocket W' and to engage and force the plate toward the right viewing Fig. 3, thus ejecting the wrapped cake from the pocket W'. The lever 430 during this operation moves from the dot and dash line position to the full line position, as shown in Fig. 3. The lever 430 is operated by a pitman 432 which is driven by a cam 433 carried by a shaft 434 which in turn is driven by a bevel gear connection 435, 436 on the shaft D.

The mechanism which completes the folding of the wrapper around the article comprises a supporting platform 440 which is disposed in alignment with the upper surface of the heater 426 and also comprises adjustable side walls 441 and 442 having slots 443 and 444 therein for receiving the outwardly projecting end tabs 427 and 428 of the wrapper. The receiving ends 425 of the folding mechanism are flared outwardly, as shown particularly in Fig. 1, and are curved to guide the end tabs 427 upwardly into the receiving ends of the slots 443 and to guide the end tabs 428 into the receiving ends of the slots 444. These slots operate in a well known manner to fold the end tabs against the ends of the cake, as shown in Figs. 9 and 10. The tabs are secured in this position by heaters 445 which are disposed in the side walls of the folding mechanism, as shown in Fig. 1, and heat the wax in the tabs and cause these tabs to adhere to the ends of the cake.

The wrapped cakes are fed through the folding mechanism by feeding means comprising vertically extending plates 446, a separate plate being disposed in engagement with each cake, as shown in Fig. 10.

The plates 446 are carried by the spindle 448 which in turn is mounted in the outer ends 449 of arms 450. The outer ends of the arms are formed with sleeves for receiving the spindle, a pair of the plates 446 being carried by each sleeve. The plates 446 are equally spaced apart.

The feeding plates 446 and arms 450 by which they are carried are given a compound movement. They are first moved downwardly between the walls of the folding mechanism to the initial position shown in Fig. 1. The plates then move in a direction longitudinal of the feeding mechanism to feed the cakes a sufficient distance to discharge the foremost cake from the folding mechanism support 440. The plates are then moved upwardly out of the feeding mechanism, as shown in the dot and dash line in Fig. 7, and in their raised position are moved backwardly to a position above their initial position and then downwardly to the initial feeding position. This compound movement is accomplished in the following manner.

The arms 450 are slidably mounted on a square shaft 451 which is engaged by a yoke 453 carried by a lever 454 mounted on a fixed pivot 455. The lever 454 is actuated by a pitman 456 which in turn is operated by a lever 457 having a roller 458 at its upper end engaging a cam 459 carried by the shaft 407. The lever 457 is mounted on a fixed pivot 460.

The mechanism just described moves the arms 450 along the shaft 451 from their initial to their discharging limit of movement. The vertical movement of the plates and the arms by which they are carried is accomplished by the mechanism shown particularly in Figs. 7 and 8. The arms 450 are connected by a rod 461 which is engaged by a link 462 having therein universal joints 463, 464. The lower end of the link is connected at 465 to a lever 466 which is mounted on a fixed pivot 467 and is actuated by a cam 468 which engages a roller 469 on the lever. The cam 468 is carried by the shaft 434. It will thus be seen that the vertical movement of the levers and plates 446 is accomplished by the action of the cam 468 and link 462, this movement being timed to lower the plates as they enter the receiving end of the folding mechanism and to raise the plates after they have fed the cakes a sufficient dis-

tance to discharge the forward cake from the front end of the support 440 of the folding mechanism.

Mechanism for placing wrapped cakes in carton

The carton blanks shown in Fig. 22 are folded into open ended cartons with the tab 518 secured within the outer edge portion of portion 510 of the blank.

The blanks may be folded into the open ended cartons in any suitable manner as by the mechanism described in my copending application Serial No. 663,076 and shown particularly in Figs. 3 and 7 to 19 inclusive in said application. This folding mechanism is not claimed in the present application and therefore it has not been deemed necessary to show and describe the mechanism.

The open ended cartons are fed along the U-shaped support by feeding means illustrated in Fig. 18. This feeding means consists of a pivoted arm 250 reciprocable in opposite directions and having transverse arms 265 and 266 arranged to receive between them flap 516 of the carton, which flap is bent backwardly, as shown in Fig. 18. This feeding operation is more fully described in the copending application hereinbefore referred to. In this embodiment of the invention two cakes are deposited in each carton and the cartons are then closed and discharged from the machine.

As each cake is discharged from the folding mechanism it is deposited on a pivoted shelf 475 which is mounted on a pivot 476 and has connected thereto an arm 477 actuated by a pitman 478 which in turn is reciprocated by a cam 479 carried by the shaft 434. After each cake has been deposited on the shelf 475 the shelf is oscillated to the vertical position shown in Fig. 10 and the cake is discharged from the shelf to a ledge 480. The ledge 480 is mounted on the upper end of a post 481. After the cake has been discharged onto the ledge 480 it is fed endwise thereon by a reciprocable plunger 482. The plunger 482 is slidably mounted in a block 483 and is actuated by a link 484 which is connected to the upper end of a lever 485 mounted on a pivot 486. The lever 485 has also connected thereto an arm 487 which in turn is connected to a pitman 488 actuated by a cam 489 carried by the shaft D.

As above stated, when one cake has been deposited on the ledge 480 it is fed or moved along the ledge by means of the plunger 482. A second cake is then deposited in alignment with the first cake on the ledge 480 and when two cakes are positioned thereon they are discharged from the ledge laterally into the U-shaped support and guide 198. This is accomplished by means of a plate 490 carried by a plunger 491 and movable across the ledge 480 to discharge the two cakes from the ledge into the open side of the carton support 198. The plunger 491 is actuated by means of a link 492 connected to the upper end of a lever 493 which is mounted on a fixed pivot 494 and is actuated by a pitman 495 which in turn is driven by a cam 496 carried by a shaft 497. The shaft 497 is driven by bevel gears 498, 499 from shaft 500 which in turn is driven by a gear connection 501, 502 from the shaft D.

The wrapped cakes are thus deposited in pairs in the U-shaped carton support 198 and a carton is then fed over the cakes by the operation of the feeding arm 250 in the manner hereinbefore described. The carton and cakes are then fed from the discharge end of the support 198 to a vertically movable supporting shelf 503. During this

movement the cakes are fed by a reciprocating plunger 270, illustrated in Fig. 18 and more fully in the copending application above mentioned as the carton is fed by the arm 250.

5 After the carton with the cakes therein has been deposited on the shelf 503 this shelf is raised to position the carton in alinement with the guideway through which the carton is fed and in which the carton ends are closed and sealed.

10 The shelf 503 is mounted on the upper end of a plunger 504 which is connected by a link 505 to a lever 506 mounted on a fixed pivot 507 and actuated by a cam 508 carried by the shaft 497.

Before describing the closure of the carton by 15 the folding and sealing mechanism attention is directed to the form of carton blank shown in Fig. 22. The blank comprises body portions 510, 511, 512 and 513 which form the top, bottom and side walls of the carton and comprises end tabs 20 514, 514A, 515, 515A, 516, 516A and 517, 517A. A sealing tab 518 is disposed at the outer edge of the body portion 513 and is folded beneath the outer edge of the body portion 510 and secured thereto. The blank is folded into an open ended carton in 25 the manner hereinbefore described and shown more particularly in the copending application mentioned. The carton is then fed over a pair of cakes and the carton and cakes are fed to the supporting shelf 503 which is then elevated in the 30 manner hereinbefore described and as shown in Fig. 19.

From the ledge 503 the carton with the cakes therein is fed into the carton closing mechanism illustrated particularly in Figs. 15-21 inclusive.

35 This mechanism comprises a supporting platform 520, upper strips or bars 521 which rest on the top of the carton and folding means disposed at the side edges of the mechanism. The carton is fed into the folding mechanism and onto the support 40 by means of a reciprocable feeding member 522 having flanges 523 at the ends thereof. The flanges engage the tabs 517, 517A and fold them against the outer ends of the cakes and as the feeding member 522 feeds the carton into the 45 folding mechanism the tabs 515 and 515A are engaged by outwardly flared ends 524 of folding members 525 disposed at the side edges of the folding mechanism. This is clearly shown in Fig. 20.

50 The feeding member 522 is carried by a plunger 526 slidable in a guideway 527 by means of a pitman or link 528 which is eccentrically mounted on a disk 529 carried by a shaft 530. The shaft 530 is driven from the shaft 531 by a bevel gear 55 connection 532, 533 and the shaft 531 is driven through bevel gears 534 and 535 from the shaft 500.

The cartons with the cakes therein are thus fed into the closure mechanism in the manner 60 illustrated in Figs. 19 and 20 and after the end flaps 515, 515A and 517, 517A have been folded inwardly against the ends of the cake the lower flaps 514 and 514A engage stationary folding strips 540 and are folded upwardly in the manner 65 shown in Figs. 19 and 20. During this feeding movement the end flaps 516 and 516A project laterally from the ends of the carton in alinement with the upper body portion 512, as shown in Fig. 21. These flaps are guided in this movement 70 by channeled guiding members 541 and are fed into contact with glue rollers 542 which receive glue from rotation in glue reservoirs 543. The glue rollers are mounted on a spindle 544 on which is mounted a gear 545 which meshes with a gear 75 546 mounted on a stationary spindle 547 and

driven by a sprocket and chain connection 548, 549 and 550 from shaft 497. The upper portion of each of the channels 541 is formed by a hinged plate 551 which are pivoted at 552 and are actuated toward the rollers by arms 553 carried by 5 a spindle 554 which has secured thereto an arm 555 having on its free end a roller 556 engaged by a cam 557 mounted on the shaft 530. As the cam 557 rotates the arms 553 will be periodically depressed thus pressing the under surfaces of the 10 flaps 516 and 516A against the upper surfaces of the glue rollers.

After the glue or adhesive has been applied to these flaps they are folded downwardly by downwardly inclined folding strips 560 which are de- 15 pressed at the sides of the folding mechanism through which the cartons are being fed. This construction is particularly shown in Figs. 15 and 17. The cartons are fed from the closure mechanism just described between delivery belts 565, the 20 receiving ends of which extend around rollers 566 carried by spindles 567. The spindles 567 are driven from the shaft 570 by bevel gear connections 571, 572 and the shaft 570 has also secured thereto a gear 573 which meshes with a gear 574 25 carried by shaft 575 which is driven by bevel gear connections 576, 577 from the shaft 531. The latter is driven by the shaft 500 through gears 579, 580. The belts 565 and rollers 566 press the end flaps 516 and 516A against the flaps 514 and 30 514A and secure these flaps in closed position.

Operation of structure illustrated in Figs. 1-22 inclusive

From the foregoing description it will be clear 35 that the soap cakes will be fed one at a time by the plunger 401 with the wrappers into the tumbler pockets wherein the wrapper will be folded around the cake and that they will be discharged one at a time from these pockets into the folding me- 40 chanism wherein the wrapping of the cakes is completed. The cakes will be fed through the folding mechanism by the individually acting plates 446 and will be discharged by the tilting shelf 475 onto the support or ledge 480. The first cake 45 reaching the ledge is fed longitudinally thereon and a second cake is placed end to end therewith whereupon the two cakes are discharged from the ledge and deposited in the U-shaped carton support 198. The carton is then fed over the cakes 50 and the carton and the pair of cakes are then raised vertically on the support 503 and are thereafter discharged from the support into the carton closing mechanism. The end flaps 517 and 517A are folded against the ends of the cakes by the 55 flanges 523 and the flaps 515 and 515A are folded against the ends of the cake by the ends 524 of the folding members 525. The bottom flaps 514 and 514A are then folded upwardly by the folding strips 540 and lastly the flaps 516 and 516A are 60 folded downwardly by the folding members 560 into engagement with the flaps 515 and 515A. During the movement through this box closing mechanism the under surfaces of the flaps 516 and 516A have received glue from the glue rollers 65 and when they are pressed against the flaps 515 and 515A and held in this position by the belts 565 the carton will be sealed.

From the foregoing description it will be seen that the machine described operates automatically to feed and wrap the articles or cakes, fold the cartons, enclose the wrapped articles therein and close the cartons.

Although one specific embodiment of the invention has been particularly shown and de- 75

scribed, it will be understood that the invention is capable of modification and that changes in the construction and in the arrangement of the various cooperating parts may be made without departing from the spirit or scope of the invention, as expressed in the following claims.

What I claim is:

1. A machine for wrapping and boxing articles comprising means for feeding the articles, means for wrapping the articles, a stationary support, means for feeding a plurality of wrapped articles to said support, means for feeding open ended cartons along said support and over the articles, and means for closing the cartons around the articles.

2. A machine for wrapping and boxing articles comprising means for feeding the articles, means for wrapping the articles, a support, means for feeding a plurality of articles on said support, means for feeding open ended cartons over said articles, and means for closing said cartons.

3. A machine for wrapping and boxing articles comprising means for feeding the articles, means for wrapping the articles, a support, means for feeding a plurality of articles on said support, means for feeding open ended cartons on the support and over said articles, and means for closing said cartons.

4. A machine for wrapping and boxing articles comprising means for feeding the articles, means for wrapping the articles, a support, means for feeding a plurality of articles simultaneously to said support, means for feeding open ended cartons over said articles, and means for closing said cartons.

5. A machine for wrapping and boxing articles comprising means for feeding the articles, means for wrapping the articles and sealing the wrappers, a stationary elongated support, means for feeding a plurality of wrapped articles to said support, means for feeding open ended cartons along the support and over the articles, and means for closing the cartons around the articles.

6. A machine for wrapping and boxing articles comprising means for feeding the articles, means

for wrapping the articles, a support, means for feeding the wrapped articles, one at a time to said support, a second support, means for simultaneously feeding a plurality of wrapped articles from the first support to the second support, and means for feeding an open ended carton over a plurality of wrapped articles on said support and means for closing the cartons.

7. In a machine of the character described, a support, means for feeding articles, one at a time to said support, means for moving the first article fed to the support to provide space for receiving the second article, a second support, means for discharging the articles from the first support, to the second support, a guideway, means for discharging the articles from the second support into said guideway, means for feeding open ended cartons along the guideway over the articles, and means for closing the cartons.

8. A machine for wrapping and boxing articles comprising a support, means for feeding a plurality of articles to said support, means for feeding an open ended carton along the support and over the articles, a shelf, said carton feeding means being operable to feed the carton to the shelf, means engageable with the articles to feed the articles simultaneously with the carton along the support to the shelf, carton closure mechanism, and means for feeding the carton and articles therein from the shelf to the closure mechanism.

9. A machine for wrapping and boxing articles comprising a hollow support, means for feeding a plurality of articles into said support, means for feeding an open ended carton along the support, and over the articles, a shelf, said carton feeding means being operable to feed the carton to the shelf, means engageable with the articles to feed the articles simultaneously with the carton along the support to the shelf, carton closure mechanism, and means for feeding the carton and articles therein from the shelf to the closure mechanism.

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