



*Union Special*<sup>®</sup>  
INDUSTRIAL SEWING EQUIPMENT

STYLES

INSTRUCTIONS FOR ADJUSTING  
AND OPERATING

2100

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PORTABLE ELECTRIC  
BAG CLOSING MACHINE

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CATALOG  
NO. 114



Catalog No. 114

INSTRUCTIONS

FOR

ADJUSTING and OPERATING

Styles In Class

2100

First Edition

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**MACHINE COMPANY**

INDUSTRIAL SEWING MACHINES

**CHICAGO**

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## FOREWORD

The Class 2100 is one of the most versatile and handy bag closing machines ever to be put on the market! It is the ideal bag closing machine for limited or intermittent operations where requirements do not justify the purchase of a more expensive high production unit. It can also be used just as advantageously in large plants as a supplemental machine.

It is our constant aim to furnish carefully prepared information that will enable the customer to secure all possible advantages from the use of Union Specials. The following pages contain valuable operating and adjusting data for Styles in Class 2100.

Union Special representatives will be found in all manufacturing centers to aid in planning and estimating requirements.

*Union Special* MACHINE COMPANY

Engineering Department

## GENERAL OPERATING INSTRUCTIONS

Your Class 2100 machine comes to you ready to operate. It has been carefully adjusted and inspected and it was shipped threaded so that you could observe the way in which the threads were led through the various eyelets to the needle and the looper.

### THREADING

For your reference, the threading is illustrated in Fig. 1, and supersedes the diagram in parts catalog No. 227 enclosed with the machine.

In Fig. 1, the needle thread is identified as No. 1 and the looper thread is designated as No. 2.

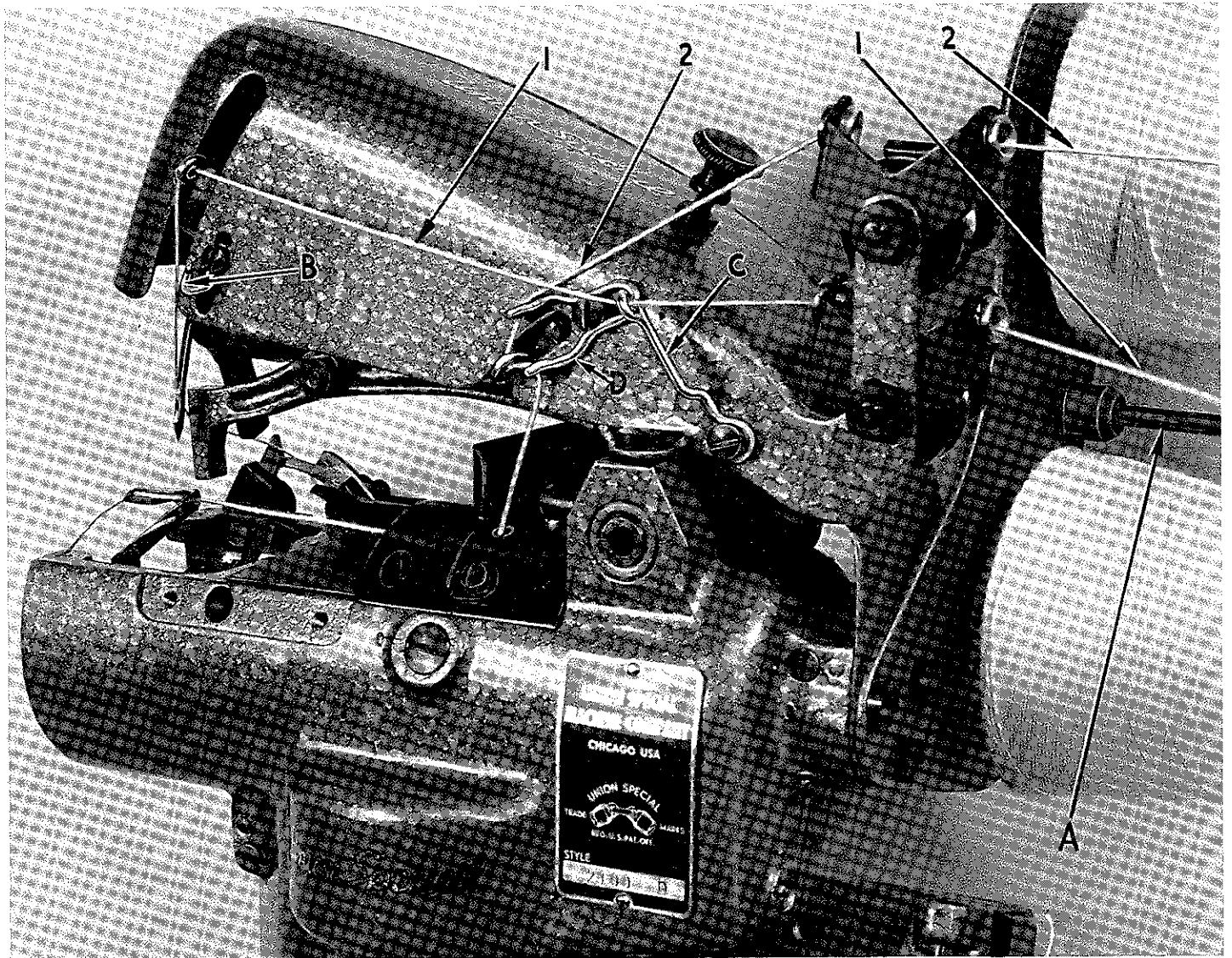


Fig. 1

## OILING

Oiling of the machine is very simple. A few drops applied to the various oiling points daily will be sufficient to insure proper lubrication.

The location of the oiling points is illustrated in the diagram in catalog No. 227.

Use a straight mineral oil with a Saybolt viscosity of 200 to 250 seconds at 100° Fahrenheit for best results.

## OPERATING

Before starting to operate, make sure that the thread wire (A, Fig. 1) is extended to its highest position. This wire was lowered in order to get the machine into the packing box and the machine will not sew properly unless the wire is extended to its highest position.

There is a set screw in the thread wire support to make this adjustment.

Check to make sure that the power supply agrees with the current specifications on the motor plate.

A slight pressure on the thumb switch on the motor handle will start the machine. Releasing the pressure will stop it.

## ADJUSTING INSTRUCTIONS

Should it ever become necessary, through normal wear or breakage, to replace any parts of the machine, the following instructions will aid in making the necessary adjustments.

### INSERTING THE NEEDLE

This machine uses needle Type 9854 size 080. It is inserted in the needle lever with its flat directly under the set screw (A, Fig. 2). The needle should be pushed up in its holder as far as it will go.

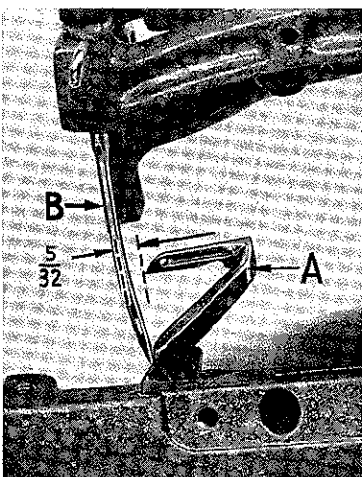


Fig. 3

### LOOPER GAUGE

The looper gauge is the distance between the point of the looper (A, Fig. 3) and the center of the needle (B) when the looper is in its extreme position to the right. This distance should be  $\frac{5}{32}$ " (Fig. 3).

In order to make this adjustment remove the plug screw from the front of the frame casting (B, Fig. 2). Here will be found a set screw which holds the looper shaft. Loosen this screw and move the looper shaft to right or left to secure the  $\frac{5}{32}$ " looper gauge. Re-tighten set screw.

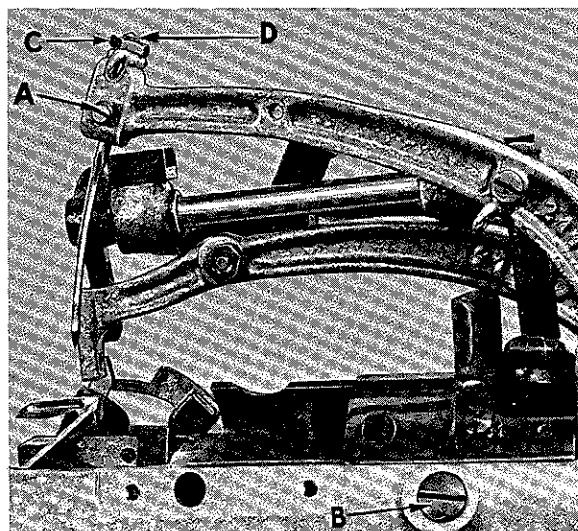


Fig. 2

## NEEDLE HEIGHT

The needle height should be set so that when the looper moves to the left and its point is even with the left side of the needle (Fig. 4), the lower edge of the looper is in line with the top of the needle eye.

To change the height of the needle, loosen set screw (A, Fig. 2), then loosen lock nut (C) and regulate the height adjusting screw (D) to the desired position. Re-tighten lock nut and needle set screw.

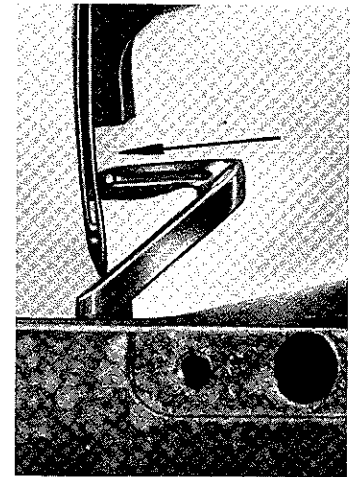


Fig. 4

## LOWER FEED DOG HEIGHT

The height of the lower feed dog is correctly set when, at its highest point of travel, its teeth extend .040 inch above the throat plate (Fig. 5). This is slightly more than 1/32 inch.

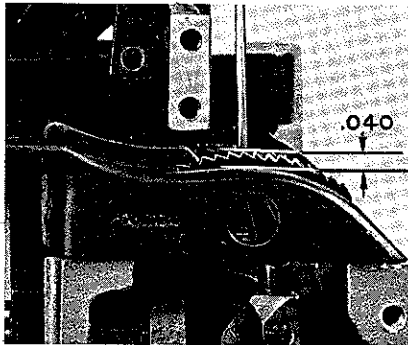


Fig. 5

To make this adjustment, loosen screw (A, Fig. 6) and set the feed dog to desired height. This screw also holds the needle guard, so after making any change in the feed dog height setting always re-check the needle guard setting.

## NEEDLE GUARD

The needle guard is set correctly when, at its most forward point of travel, it just contacts the needle (B, Fig. 6).

This adjustment is made by loosening screw (A) and moving the guard in the desired direction. There is a seat milled in the feed dog holder to receive the needle guard. Make sure that the guard is squarely seated in it.

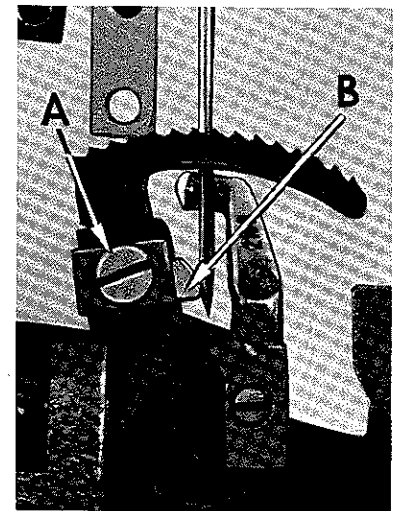


Fig. 6

As described in the "Lower Feed Dog Height" instructions, the screw which holds the needle guard also holds the feed dog, so after making any change in the needle guard position, always re-check the lower feed dog height.

## STATIONARY KNIFE

The stationary knife (A, Fig. 7) should be set so that its top edge is even with the lower side of the throat plate (B).

To make this adjustment, loosen the screw (C) and move the knife up or down in its holder as required.

## MOVABLE KNIFE

The movable knife (D, Fig. 7) should be set so that in its entire arc of travel, it just clears the throat plate and so that in its open position its pilot (E) overlaps the stationary knife by 1/8 inch.

To make this adjustment, loosen holding screw (F) and move the knife in the required direction.

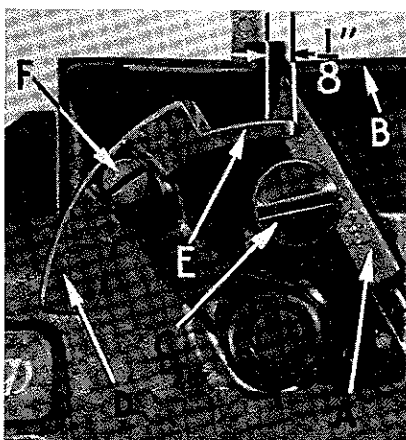


Fig. 7

## STITCH LENGTH

To change the stitch length, remove the cover plate located on the back of the machine directly below the serial number. Loosen the lock nut (A, Fig. 8) and turn screw (B) clockwise to shorten stitch or counterclockwise to lengthen it. After desired stitch length has been obtained, re-tighten the lock nut and replace the cover.

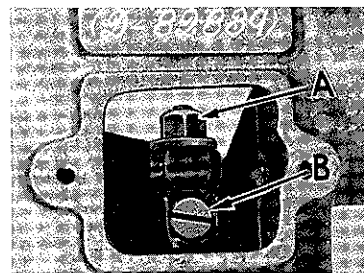


Fig. 8

**NOTE!!** Any change in the stitch length will necessitate a change in the needle guard setting. Please proceed according to instructions under "Needle Guard".

## THREAD HANDLING MEMBERS

The needle thread take-up (B, Fig. 1) should be set so that on the down stroke of the needle, the needle thread contacts the take-up just before the needle has completed its down stroke.

The needle thread eyelet (C, Fig. 1) is correctly set when an equal quantity of needle thread is drawn through the tension discs on both the up and down strokes of the needle bar. At this setting the eyelet will be about  $40^{\circ}$  to the left of vertical.

The looper thread eyelet (D, Fig. 1) should be set so that the holding screw is about in the middle and the shank is approximately in line with the slot in the cover.

## THREAD TENSIONS

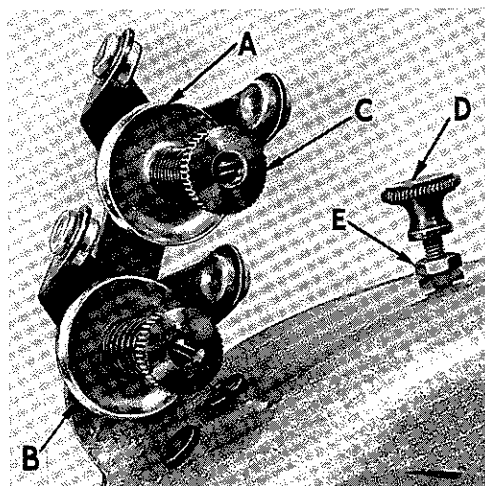


Fig. 9

The needle and looper thread tensions are mounted on top of the machine (Fig. 9). The upper tension (A) controls the looper thread and the lower tension (B) controls the needle thread.

The tension applied on the needle thread should be about one half of the breaking strength of the thread. A comparatively light tension is applied on the looper thread, only barely sufficient to steady it when passing thru the machine.

Tension is increased or released by manipulation of the nuts (C). Be sure that the threads are between the discs at all times.

Considerable variation of the stitch formation can be caused by improper tension on the threads.

## FOOT PRESSURE

The pressure on the presser foot is regulated by means of the knurled adjusting screw (D, Fig. 9).

Only enough pressure to feed the work uniformly should be applied.

Loosen the lock nut (E) and turn the adjusting screw clockwise to increase pressure and counterclockwise to decrease it.



## ELECTRICAL EQUIPMENT

Your machine is equipped with a universal motor which can be used on either single phase alternating or direct current.

Before operating the machine, make sure that the wall socket or receptacle is properly grounded.

Periodic inspection of the carbon brushes in the motor should be made. Two types of motors, using different brushes and brush retaining caps have been used for these machines. If you require new brushes or caps, they may be identified by measuring the diameter of the retaining caps. If the retaining cap is 11/16 inch diameter, your motor uses brush No. G21233 F and cap No. G21233 G. If the retaining cap is 1/2 inch diameter, your motor uses brush No. G21233 FQ and cap No. G21233 GQ.

## THROAT PLATE INSERT

Included with the accessories of your machine, you will find an auxiliary throat plate insert No. 2130 (A, Fig. 10) and attaching screw No. 77 K (B).

The assembly of this insert to the throat plate is illustrated in Fig. 10.

This insert is recommended when closing bags made from light and medium weight cotton or burlap.

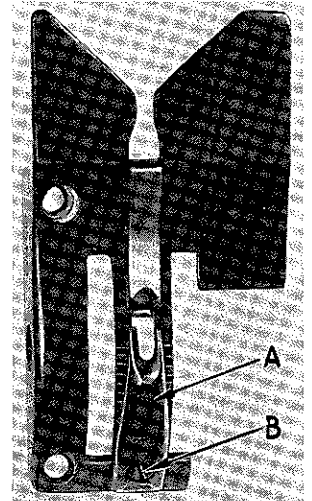


Fig. 10

## AVAILABLE EXTRA EQUIPMENT

If desired, you may order a top lock spring balancer for overhead suspension (Fig. 11). The spring balancer holds the machine at any desired working height. When not in use, merely push it up out of the way. For free hand use, simply unsnap it from the suspension.

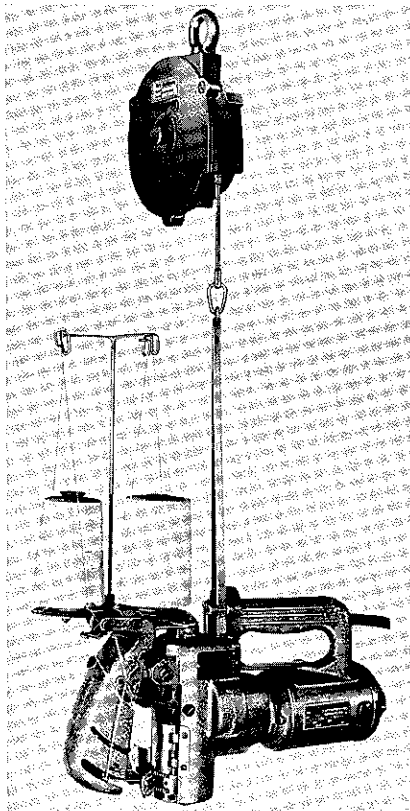


Fig. 11

If a limited output packaging unit is desired for small size bags, a pedestal bracket can be supplied (Fig. 12). The bag closer can be clamped to the pedestal at the right height for the bag. With this installation, starting and stopping is through a floor treadle and the unit may be operated from a sitting position.

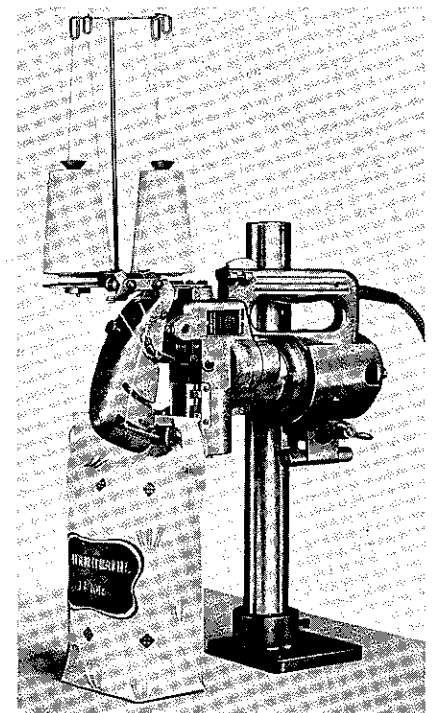


Fig. 12



FINEST QUALITY

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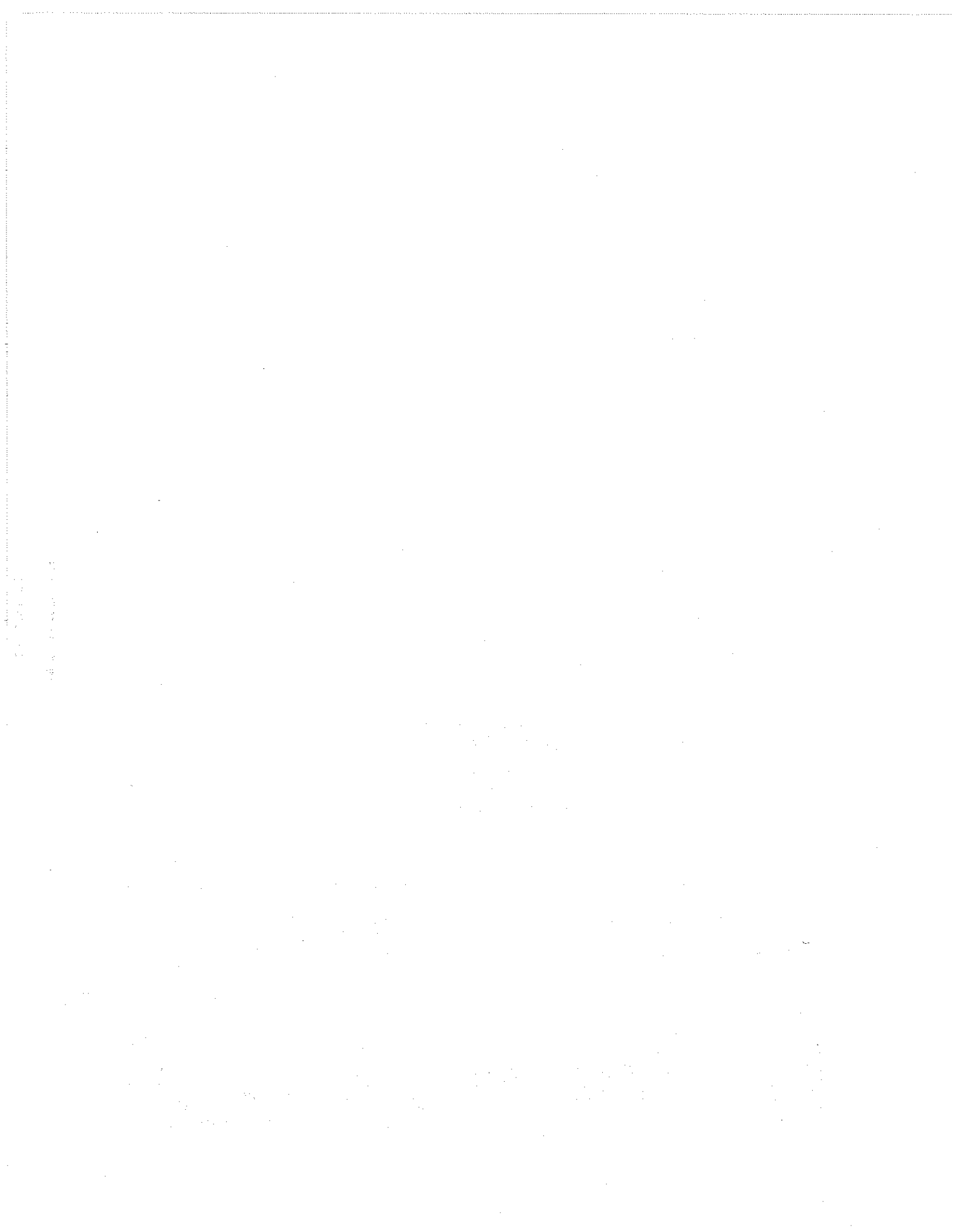
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