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Rolled products of ferrous metals.
Surface defects. Terms and definitions

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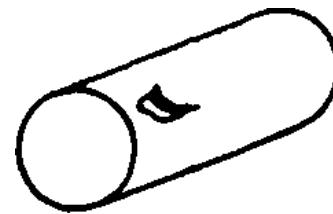
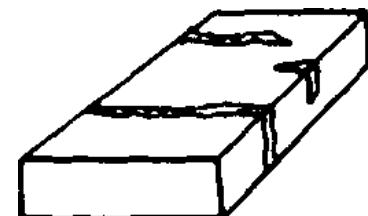
, , *

- D. Eingewahzter Sand Und
Elogcwaltzte Schlacke
E. Rolled slug patch. Sand
mark
F. Contamination Jamine

2. (-)

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- D. Ausgewalzler Schlacke-
neiscnenschluss
E. Shelf, Rolled crust
F. Crofite lamine



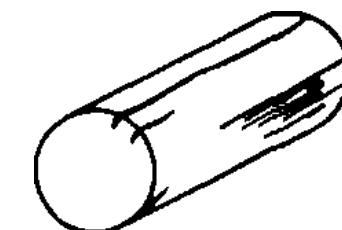
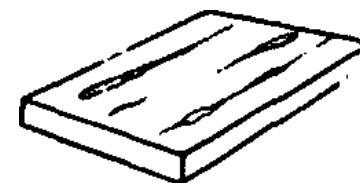
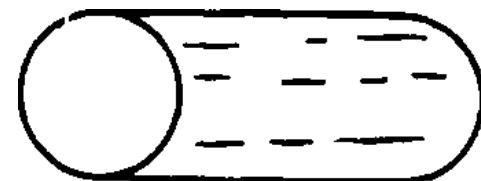
3.

- D. Haarriss, Schuppe
- E. Hairline, Spill
- F. Fissure capillare



4.

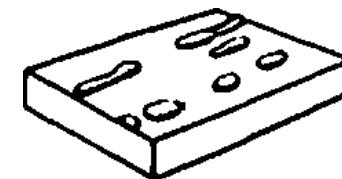
- D. Eingewalzte Blase
- E. Rolled blister
- F. Soufflur laming



5.

D. BcUblasv. GescMvssene
Blasen (Beulen)

-ia



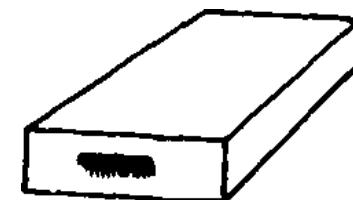
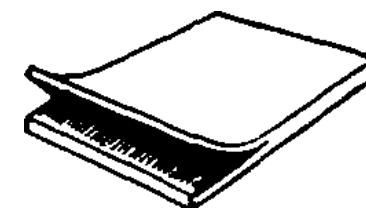
6.

D. Doppiung
, Delamination
Exfoliation

II

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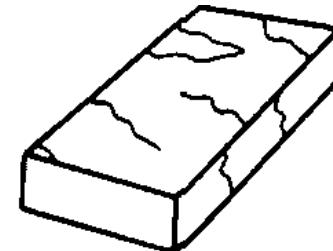
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7.

0. Brandriss Von Blocken,
Qwerauf bruche
E. Ingot hot tear
F. Crique

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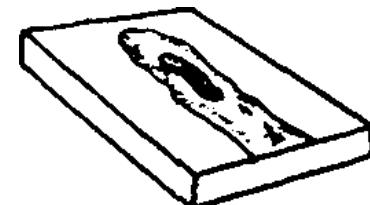
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- D. Schale “
E. Sliver. Rolled scab
F. Rephurc de lingot

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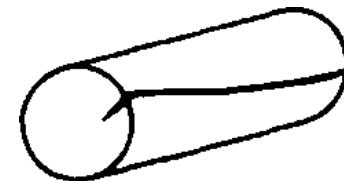
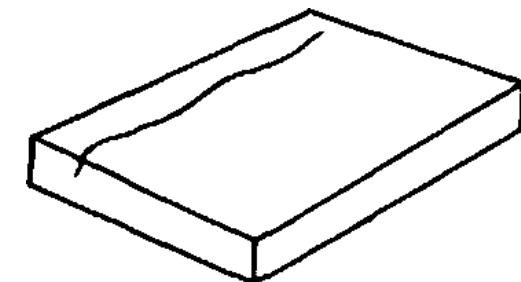
- E. Rolled burn-on
F. Sable incruste famine



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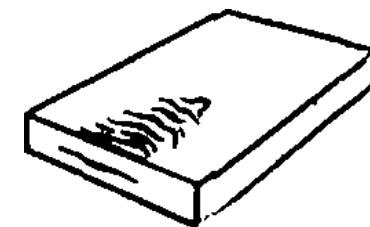
- D. Eingewalzter Riss
E. Rolled crack
F. Fissure laming



11.

- D. Grober
E. Pipe

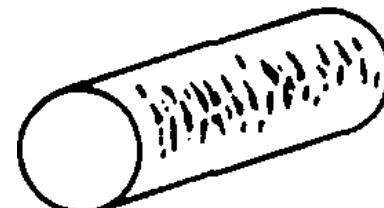
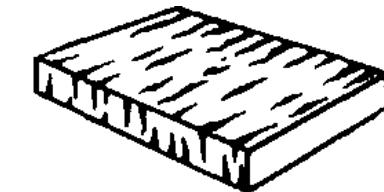
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12.

- D. Brandriss
E. Hot tears
F. Crique

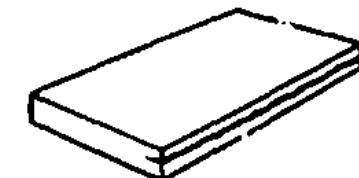
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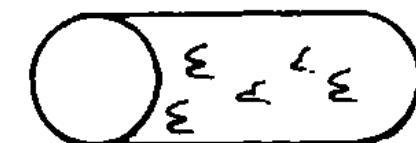
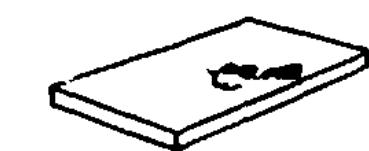
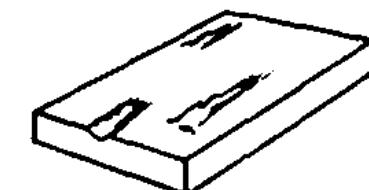


D. Kantenriss
E. Cracked edge
F. Crique sur les bords
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Folded edge
F Bord lainini-
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1). Geuakte Schale
E. Sliver. Rolling skin
F. Rephere



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16.



- D. Spannungsriß
- E. Stress crack
- F. Criquiic de tension

17.



- D. Locli
- E. Pigeon hole
- F. Cante



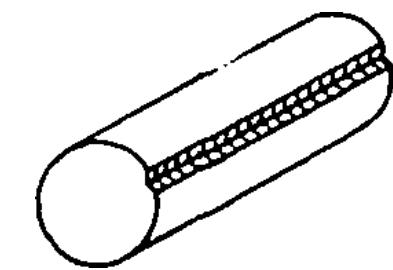
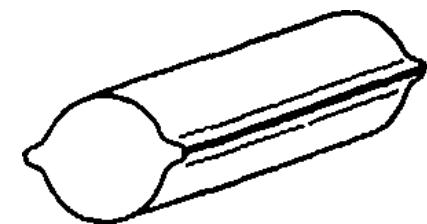
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- D. Walznat
- E. Ridge
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- D. Langseinschnitt
- F. Coupe de lam/nage

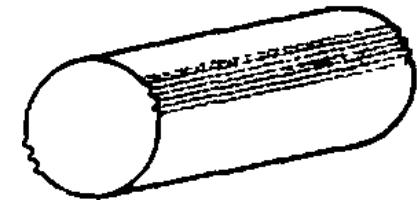
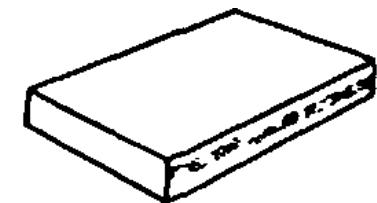
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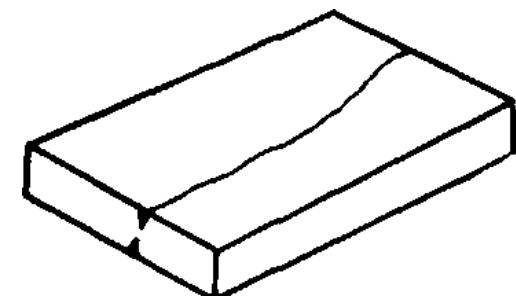
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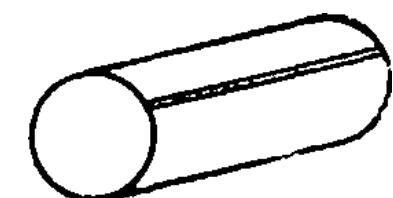
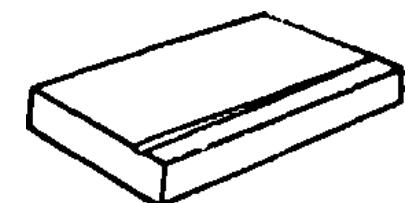
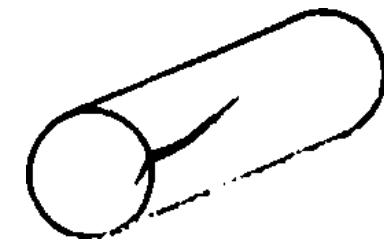
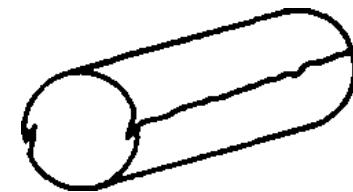
- D. FSHchiigcn
- E. Wrinkles
- F. Ridvb

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22.

- D. Cbenvatoung
- E. Lap
- , Rcpliurv <le lamina

1.
2.



23.

- D. Oberschmiedung
- E. Forging fold
- F. RepTiure de forgeagc

24.

- D. Ri*fe
- E. .we, -Lade mark
- F.)

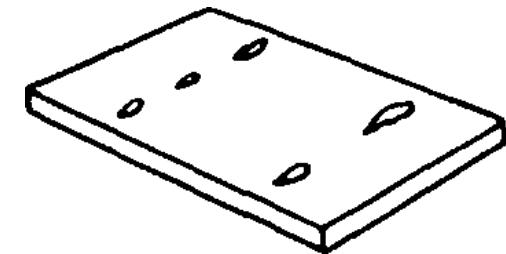
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- D. Durchgangsbriiche
- E. Through tears
- F. Ruptures, Troupes



26.

- » Anbruchc
- E. Surface tears
- F. Cassures, Dechirures



27.

- D. Schrammen
- E. Guide scratch



23.

- D. Durchstiche
- E. Pricks
- F. Piqûres



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 F. Marques tin cyliitdc de
 laminoir

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- 1). Austfcxxnl/le Ahdrucke
 E. Rolled hide nla l ions
 F. Marque Inmiiccs

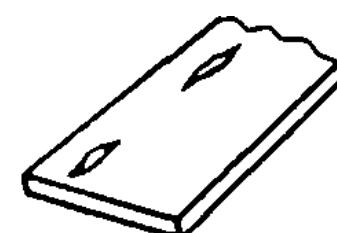
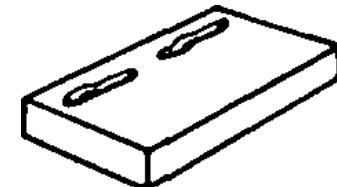
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31.

- D. Ahdriickiel/
 E. Nel shaped roll marks
 F. Reticule des marques

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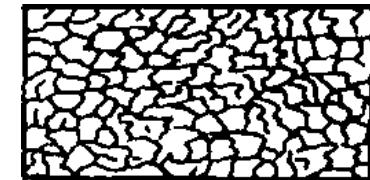
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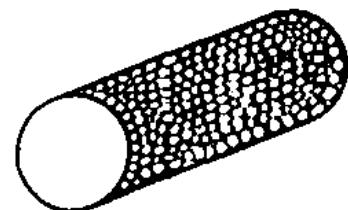
32.

- D. Schnuppenheit
 E. Rippled surface
 F. Ecailles

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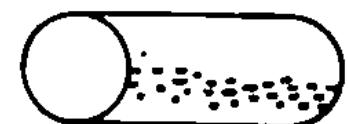


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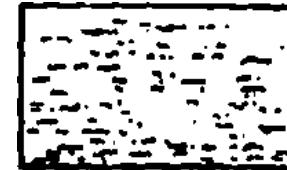
- D. OberflachenuverhiUung
 E. Surface overheating
 F. Surchauffe de la surface

34.



- D. Einwälzung, Zundure-
 inualzungen
 E. Rolled-in scale
 F. Scorics de laminer

35.



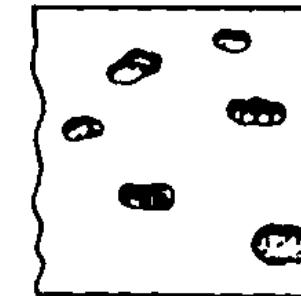
- D. Rauhigkeit, Rattermarke
- E. Pitted surface
- F. Surface gre!6e

36.

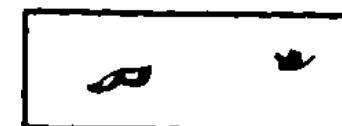
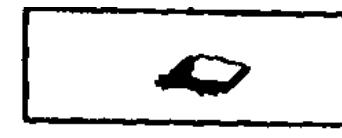


- D. Zundernarben
- E. Pitting, Scale pits
- F. Scories de puit

37.



- D. Eingewalzte Metallteilchen
- F. Partlcules mitalliquea la*
mintes



38.

F. Soufflure de surface



39.

- D. Abplatzter Zunder
- E. Exfoliating scale
- F. Calamine d^lachante



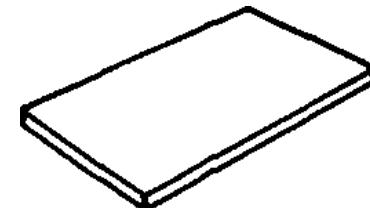
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- D. Eingewalzte Fremdcln-schlusse
- E. Rolled-in foreign particles
- F. Particules par laminage

41.

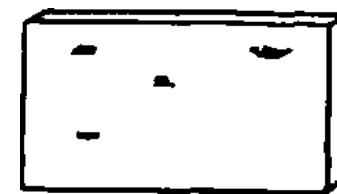
- D. Anschuemmung des tall

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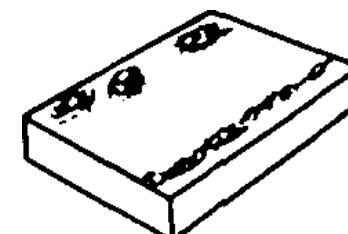


- D. Schleifstellen
- E. Grinding traces
- F. Marques de dtgrossisage
abrasif

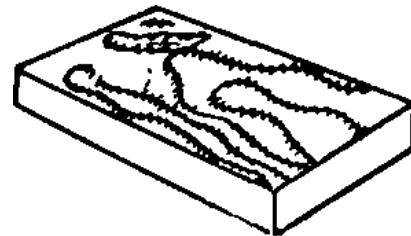
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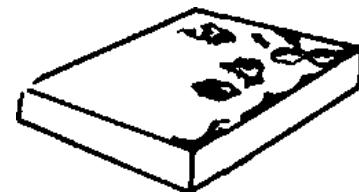
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D. Verunreinigungsilccken

E. Dirt spots

F. Taches de crassc

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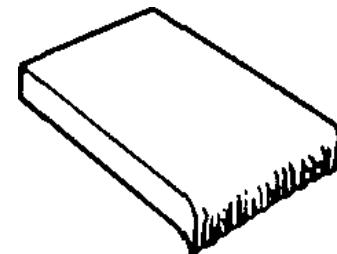


E. Sticker-patches

F. Taches d'adhesion du sou-
dage

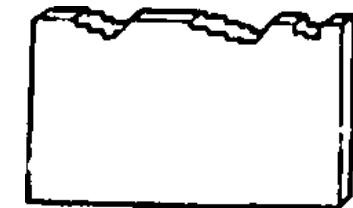
47.

- D. Pressgrat
- E. Burr
- F. Bavure



48.

- D. Scharte
- E.
- F. Breche



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49.

- D. Siirnriss
- E. End crack
- F. Fissure sur l'cxlftmile

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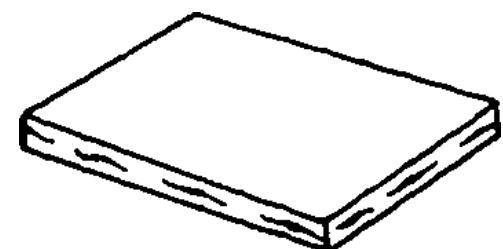
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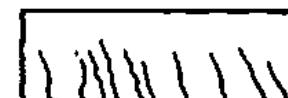
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- D. Gleitlinien, Fliesalinen
- E. Slip bands
- F. Bandes de glisseincnt

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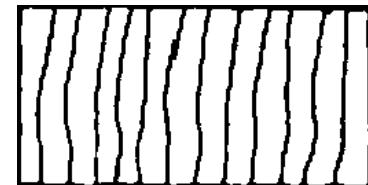


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D. Kaliverlestigungssreifen



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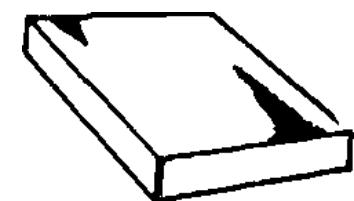
D. Knicke
E. Cross breaks. Coil breaks
F. Pliage



53.

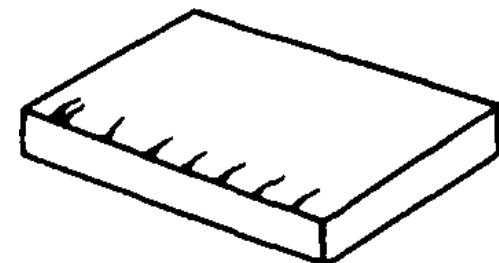
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D. AnlauHarben
E. Heat tints. Oxidation lints
F. Cotileurs de recueil



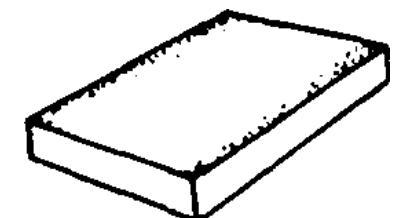
54.

- D. Beizrisse
- E. Pickling cracks
- F. Fissures de decapage



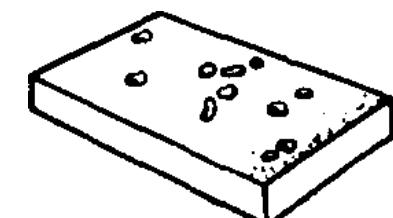
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- D. unzureichendes Beizen
- E. Underpickling
- F. Dicapage insuMisant



56.

- D. Überbeizung
- E. Overpickling

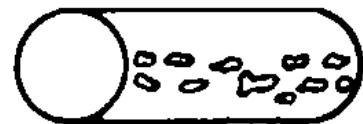
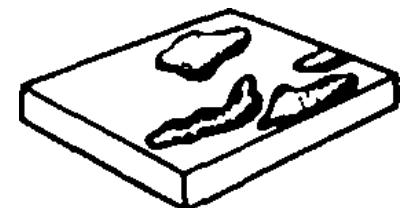


57.

- E. Slime deposit
- F. Dépôt de boue

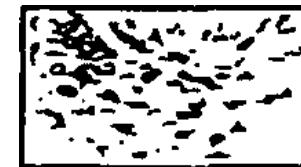
58.

- D. Zunderresle
- E. Scale residue
- F. Reales de calamine



59.

- D. Eisenrostflecken
- E. Rust spots
- F. Taches de rouille



60.

- »
- . RaUerma:kcn
- E. Pickling
- F. Nuances de dccapago

61.

- I Lin.
- D. Scilieilrisse
- .. Grinding cracks
- I Riel i i ivii I i> in

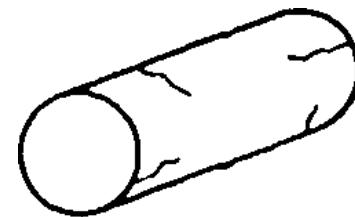
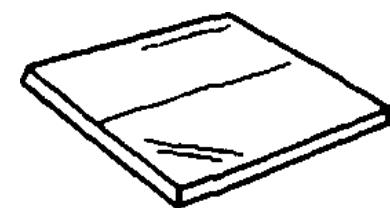
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- D L.inhviiiliimicii
- I. CtMiipri'MiHi mark*.
- Handling in;irk>
- F Tniprcinh Jr chm-

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63.

- D. Kratzer
- E. Scratch
- Rayurc

64.

- D. Malle Flache
- E. Dull surface
- F. Surface terne

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Anschwemmung des Metal ls	41
Ausgewalzte Abdrucke	30
Ausgewalzter Schlackeneisenschluss	2
Beizblase	5
Beizrisse	54

Brandriss	12
Brandriss Von Blöcken	7
Dopplung	6
Durchgangsbrüche	25
Durchstiche	28
Einbeulungen	62
Eindrücke	29
Eingewalzte Blase	4
Eingewalzte Fremdeinschliisse	40
Eingewalzte Metallteilchen	37
Eingewalzter Riss	10
Eingewalzter Sand Und Eingewalzte Schlacke	1
Einwalzzunder	34
Eisenrostflecken	59
Falteiungen	21
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Fliesslinien	50
Geschlossene Blasen (Beulen)	5
Gewalzte Schale	15
Gleitlinien	50
Graue Flecken	43
Grober AnbrOche	11
Haarriss	3
Kaltverfestigungsstreifen	51
Kantenriss	13
Knicke	52
Kratzer	63
Langseinschnitt	19
Loch	17
Matte Fläche	64
Oberflächenüberhitzung	33
Pressgrat	47
Queraufbrüche	7
Rattermarke	35
Rattermarken	60
Rauhigkeit	35
Riefe	24
Schale	8
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Schuppe	3
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Spannungsriß	16
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Oberbeizung	56
Oberschmiedung	23
Überwalzung	22
Unzureichendes Beizen	55

	icpMima
Verunreinigungsflecken	15
Walznat	18
Zundereinu alzungen	31
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Burr	47
Coil breaks	52
Compression marks	62
Cracked edge	13
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Delamination	6
Dirt spots	15
Dull surface	61
End crack	19
Exfoliating scale	39
Folded edge	11
Forging fold	23
Gray spots	43
Grinding cracks	61
Grinding traces	42
Groove	24
Gt ide mark	24
Gt 'de scratch	27
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Hc.rline	3
Handling marks	62
He H tints	53
H<? tears	12
Inc eolations and roll marks	29
Infcot hot tear	7
Lap	22
Net shaped roll marks	3!
Overpickling	56
Ox dation liqts	53
Pi. kling cracks	54
Pic ling lints	60
Pigeon hole	17
Pipe	11
Pitted surface	35
Pitting	36

	lepMH ^a
Ridge	28
Rippled surface	18
Rolled blister	32
Rolled Jmrn-oi	4
Rolled crack	9
Rolled crust	10
Rolled indentations	2
Rolled-m foreign particles	30
Rolled-in scale	40
Rolled scab	34
Rolled slag patch	8
Rolling skin	1
Rust spots	15
Sand mark	59
Scale pits	1
Scale residue	36
Scratch	58
Shell'	63
Slime deposit	2
Slip bands	57
Sliwr	50
Spill	8. 15
Spot cai bnrizatioi	3
Slicker patches	44
Stress crack	46
Surface overheating	16
Surface tears	33
Through tears	26
Underpickling	25
\ rinkles	55
	21

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Bandes de ghsscmeiit	50
Bav lire	47
Bord lamine	14
Brcche	48
Calamine delachaliir	39
Cassires	26
Cav ite	17
Contamination lamic	1

Couleurs de recuit	53
Coupe de laminage	19
Crique	12
Cruque de lingot	7
Crique de tension	16
Crique sur les bords	13
Croute lamine	2
Decapage insuffisant	55
Dechirures	26
Depot de boue	57
Ecailles	32
Empreinte de choc	62
Exfoliation	6
Fissure capillaire	3
Fissure lamine	10
Fissure sur i'extremite	49
Fissures de decapage	54
Marques de degrossisage abrasif	42
Marques du cylindre de laminoir	29
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Particules metalliques laminees	37
Particules par laminage	40
Piques	28
Pliage	52
Rainure	24
Rayure	63
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Repliure de forgeage	23
Repliure de laminage	22
Repliure de lingot	8
Restes de calamine	58
Reticule des marques	31
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Scories de laminoir	34
Scories de puit	36
Soufflure lamine	4
Soufflure de surface	38
Surchauffe de la surface	33
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Surface terne	64
Taches d'adhesion du soudage	46
Taches de carburisation	44
Taches de crasse	45
Taches de rouille	59
Taches grises	43
Trouees	25

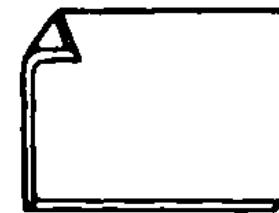
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- D. Stirnumblegen
- E. Turn-up, Turn-down end
- F. Surface de bout replied



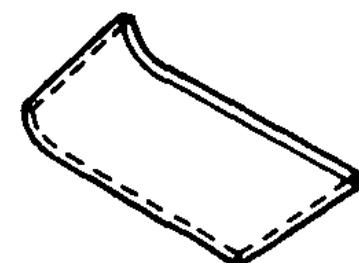
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- D. Gerrummte Ecke
- E. Bent angle
- F. Angle recourbe

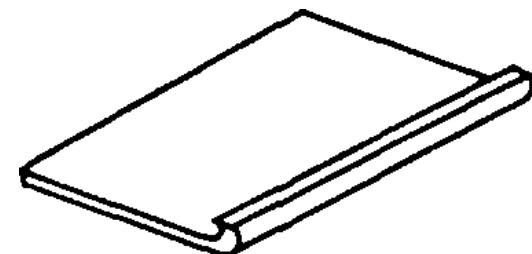


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- E. Beni end, Turned-in end,
Turn-down end
- F. Replier bord ou extremity



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E. Bended edge

F. Bord pas coupe

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D. Unebene stiin

C. Uneven end, Horns

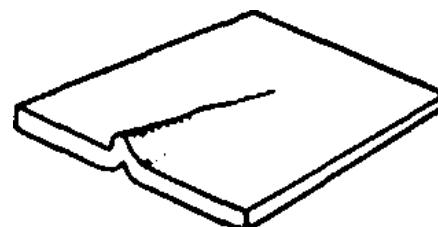
F. Surface de bout integrate

6.

D. Faltung

E Fold

F. Ride. Pli



7.

I). Rautigkeil

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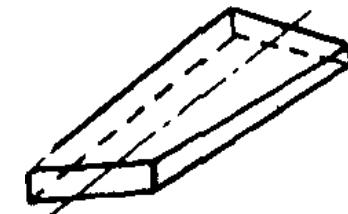
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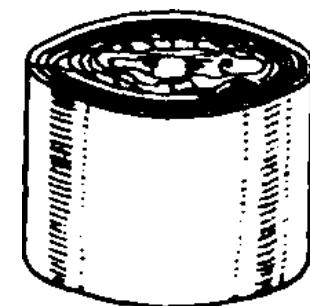
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- D. Blechverdrehung,
Bandverdrehung
- E. Twisting
- . Tordage des (dies (dos
bandes)

9.

- . Coil with (olds
- . Rides dans de rouleau



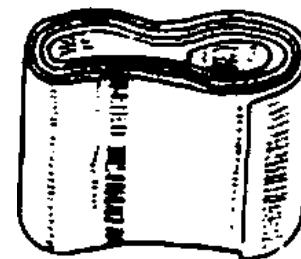
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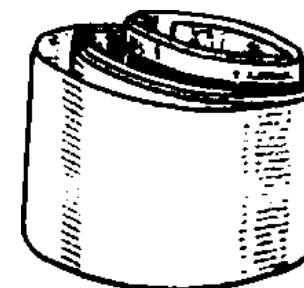
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D. Abgellachler Ring
Crumpled coil
F. Rouleau froissi*

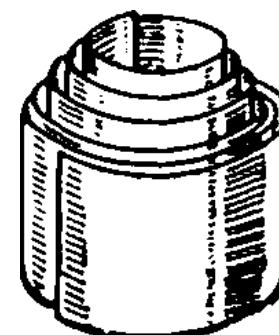


II.
D. Undicht aufgcwickchcr
Ring
h Loose coil
F. Rouleau dessert



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F. Telescoped coil
F. Rouleau vo (elcscopiquc

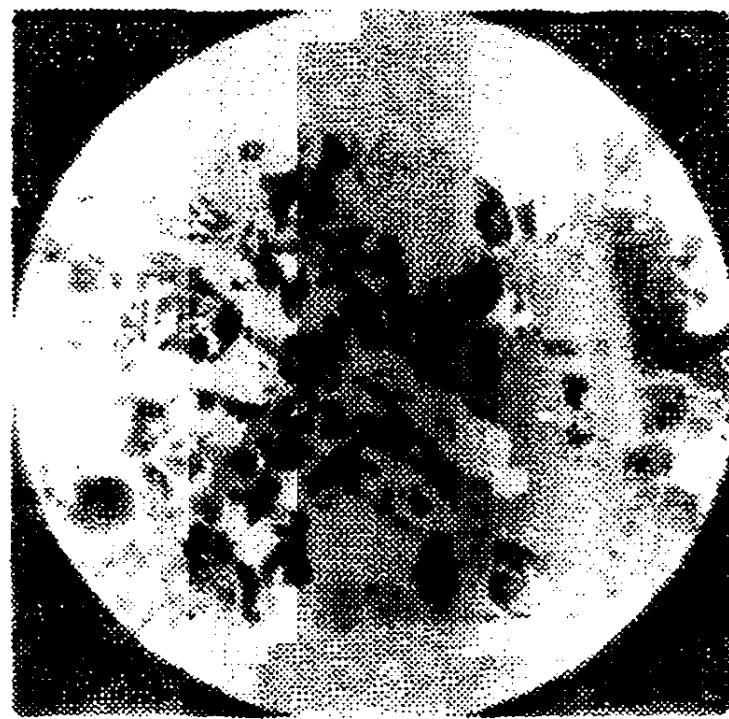
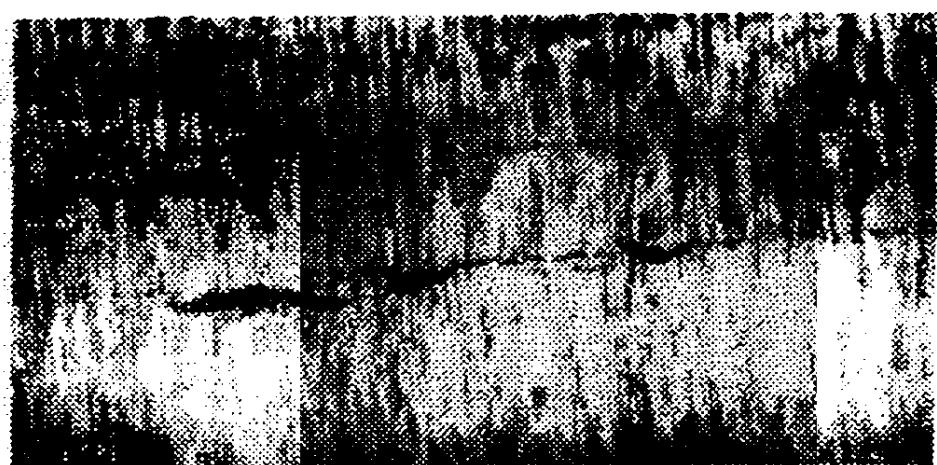


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Abgeflachter Ring	10
Bandverdrehung	8
Blechverdrehung	8
Faltung	6
Gerrummte Ecke	2
Rautigkeit	7
Stirnumbiegen	1
Undicht autgewickelter Ring	11
Unebene stiin	5

Bended edge	4
Bent angle	2
Rent end	3
Coil with folds	9
Crumpled -coil	10
Fold	6
Horns	5
Loose coil	11
Rhomboidity	7
Telescoped coil	12
Turn-down end	1.3
Turned-in end	3
Turn-vp	1
Twisting	8
Uneven end	5

	,
Angle recourbe	2
Bord pas coupe	4
Form rhomboidale	7
Pli	6
Replier bord ou extremite	3
Ride	6
Rides dans de rouleau	9
Rouleau desserre	11
Rouleau en telescopique	12
Rouleau froisse	10
Surface de bout integrate	5
Surface de bout repliee	1
Tordage des totes (des bandes)	8



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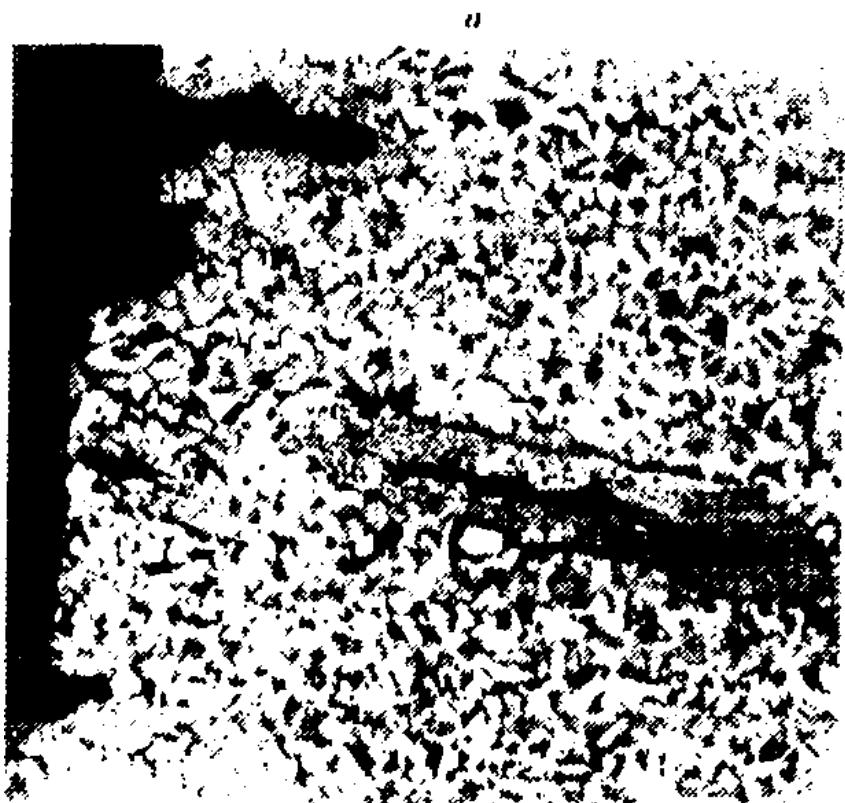


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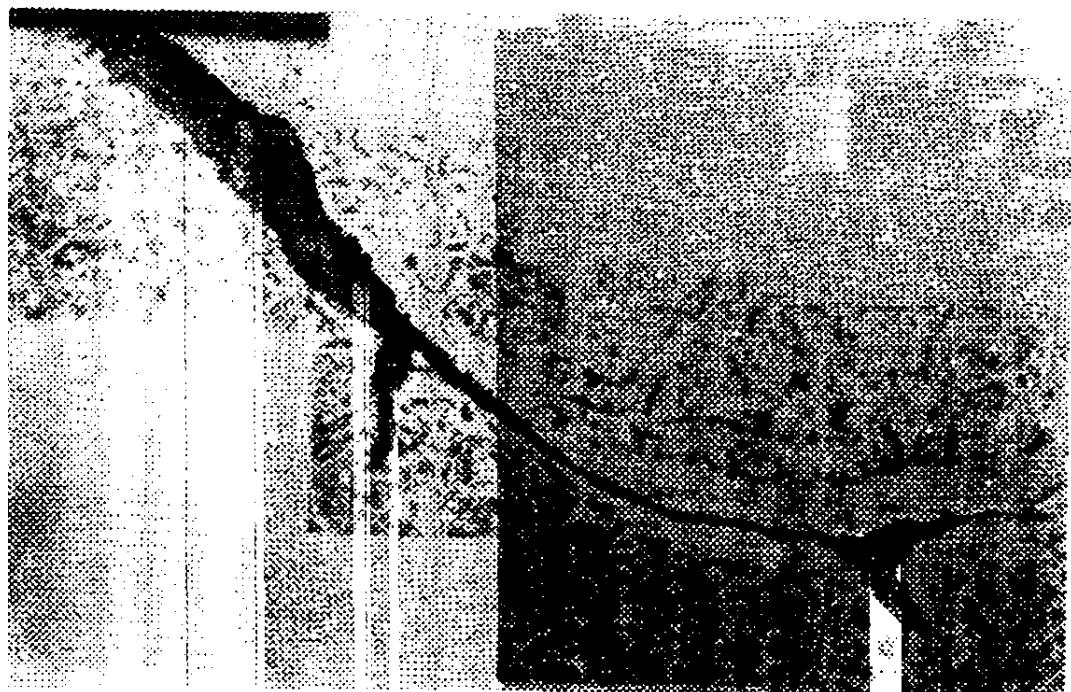
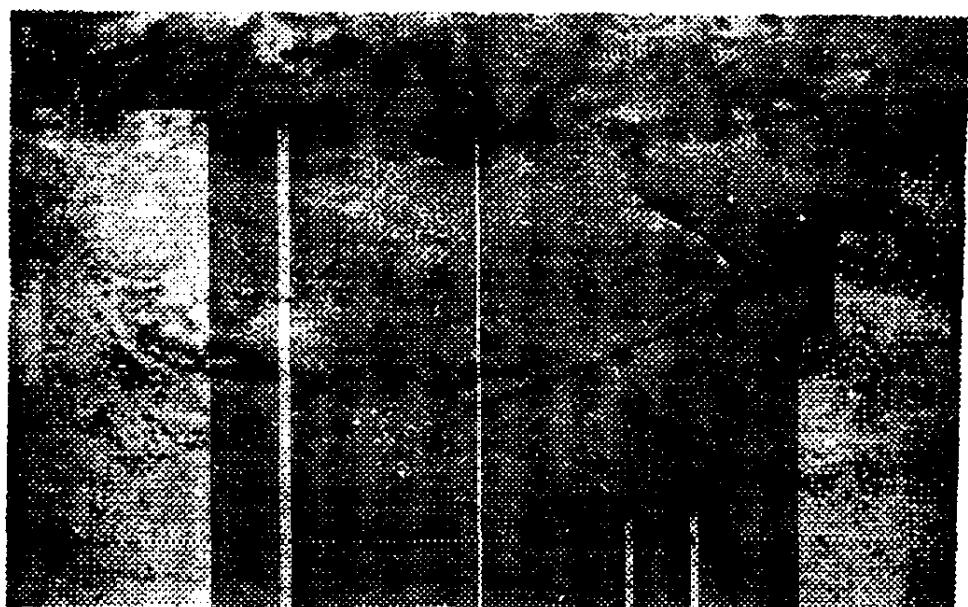
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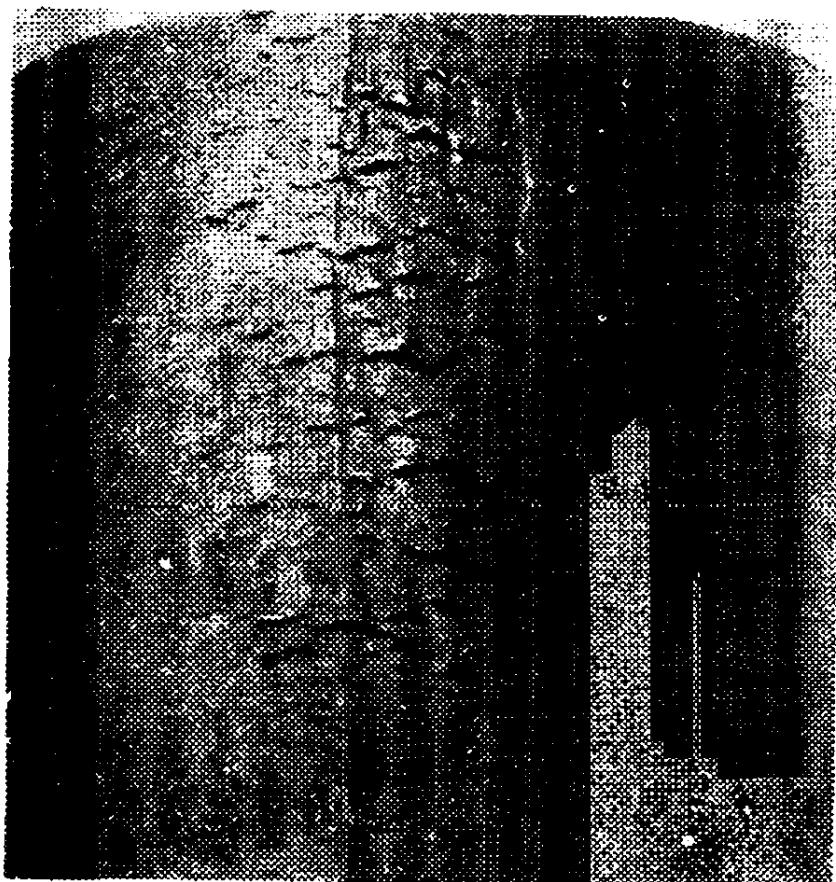
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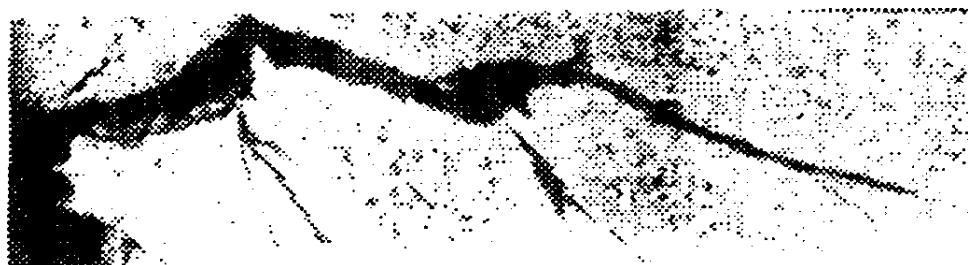
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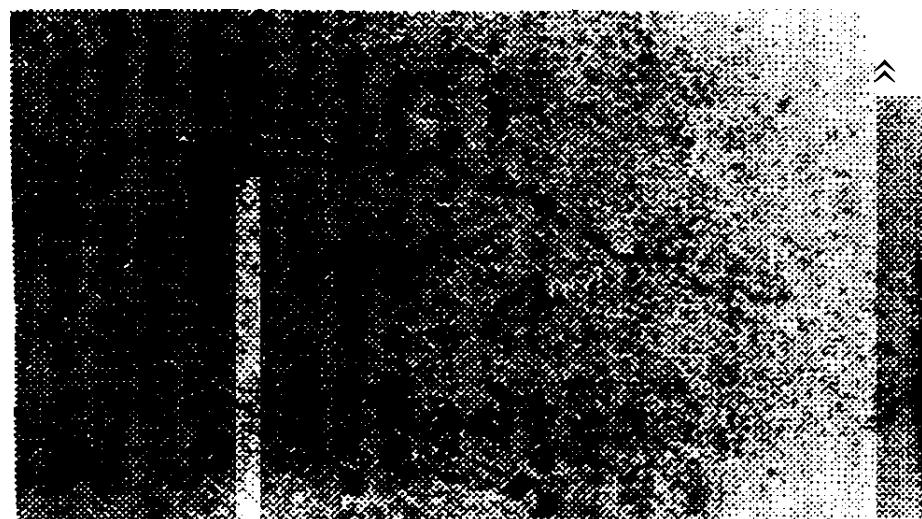
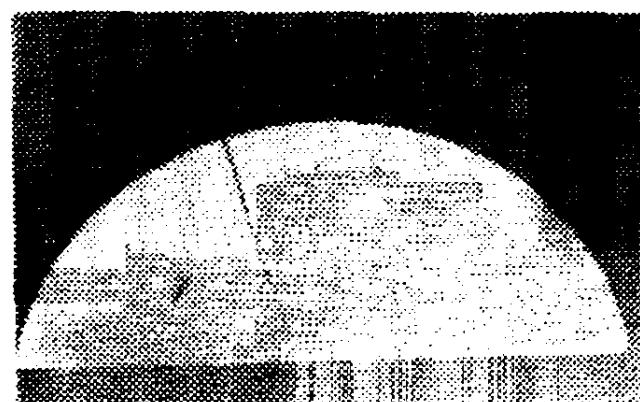


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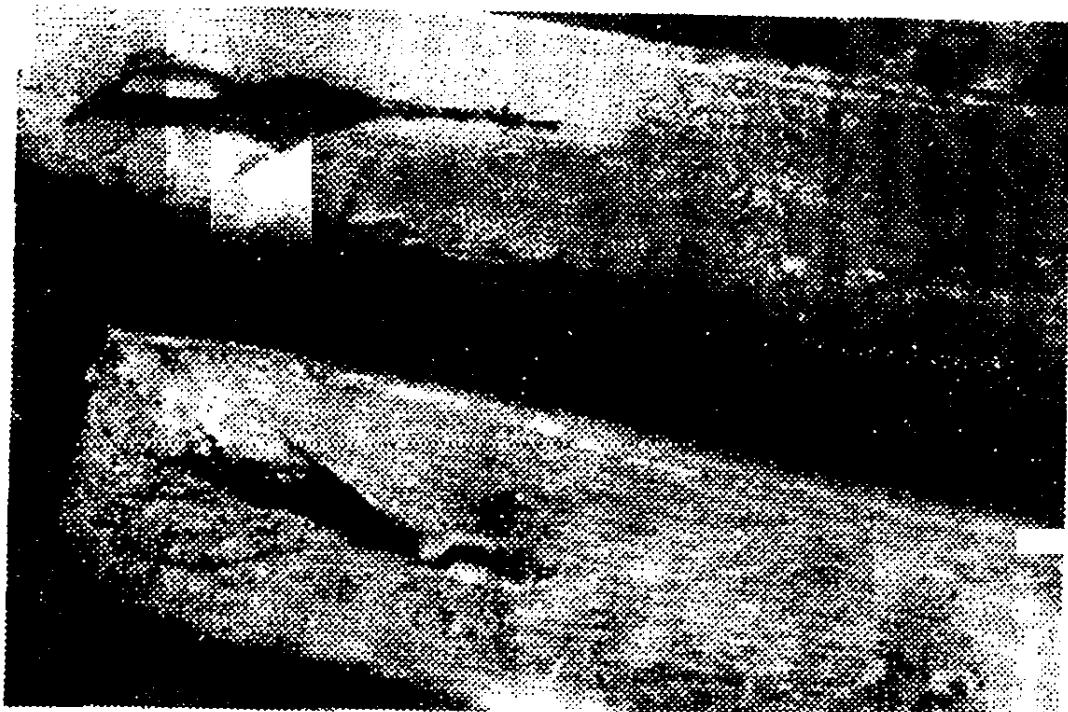
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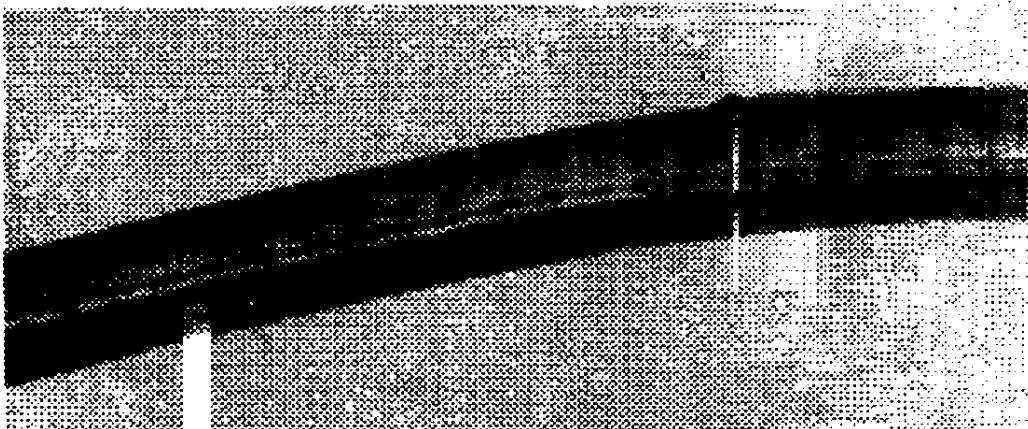
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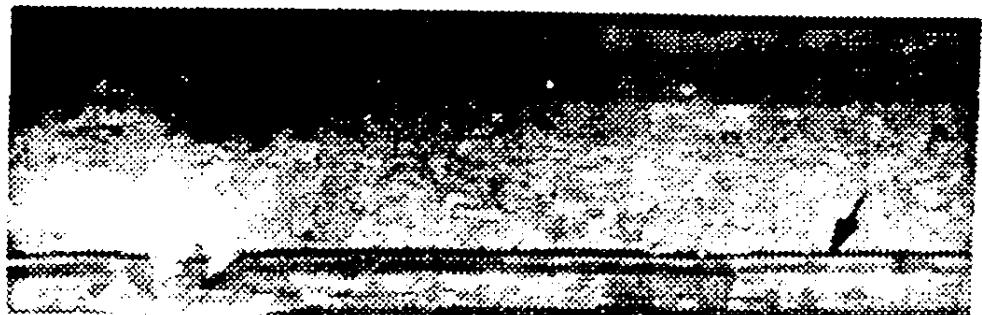
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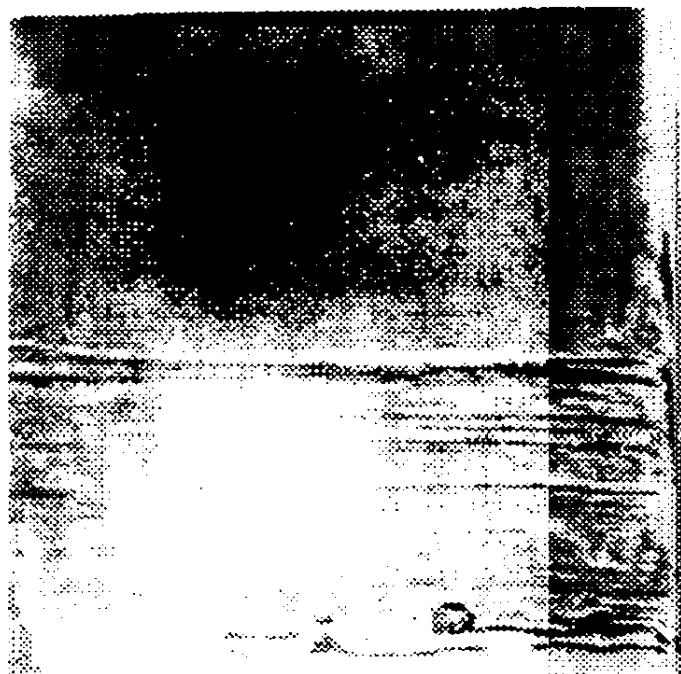


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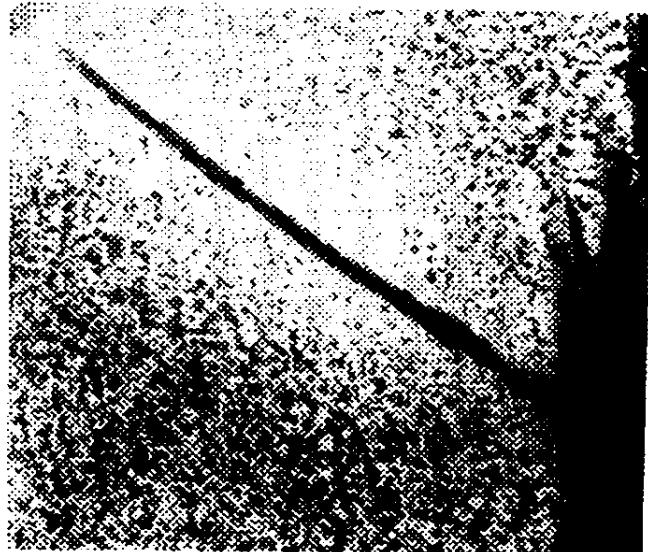
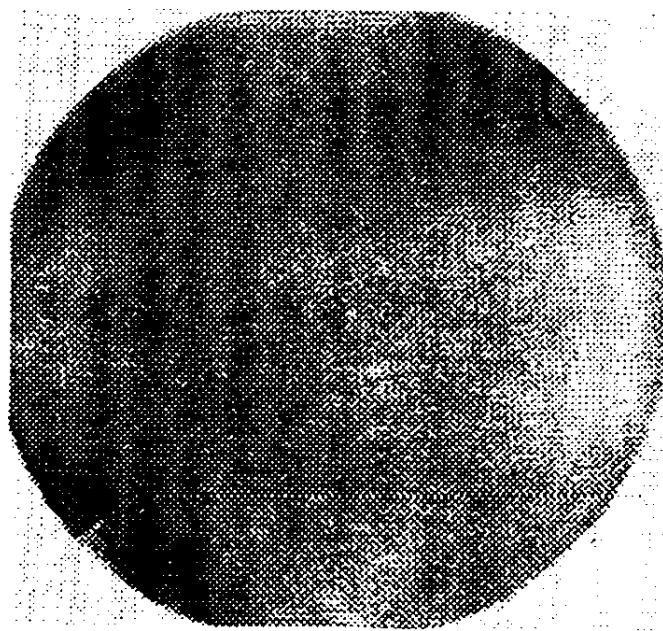
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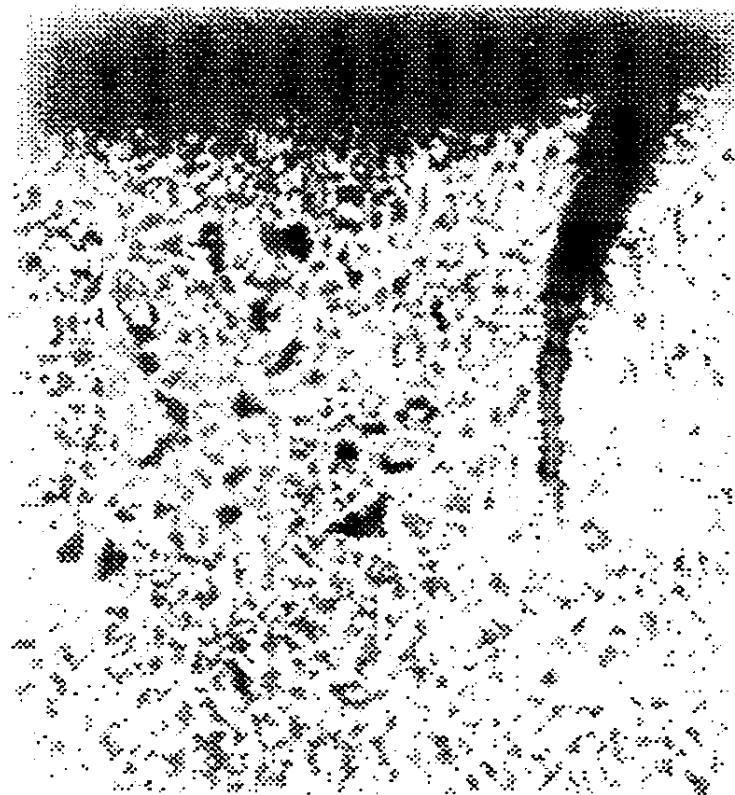


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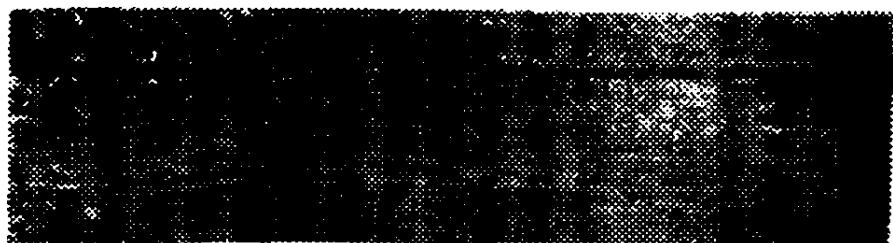
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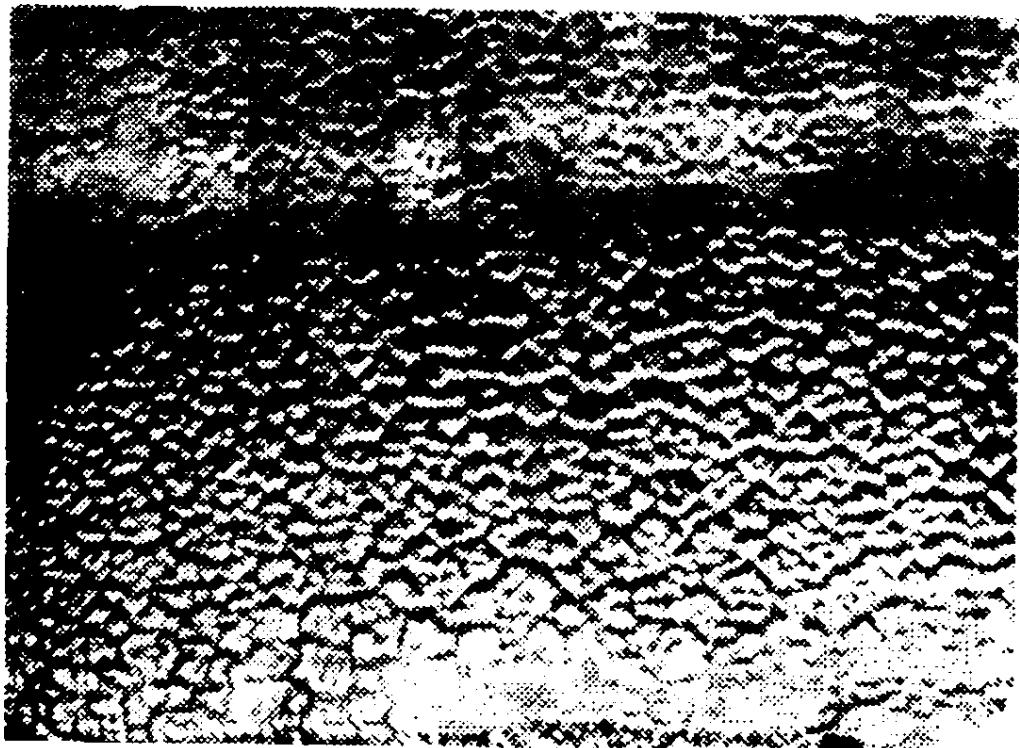
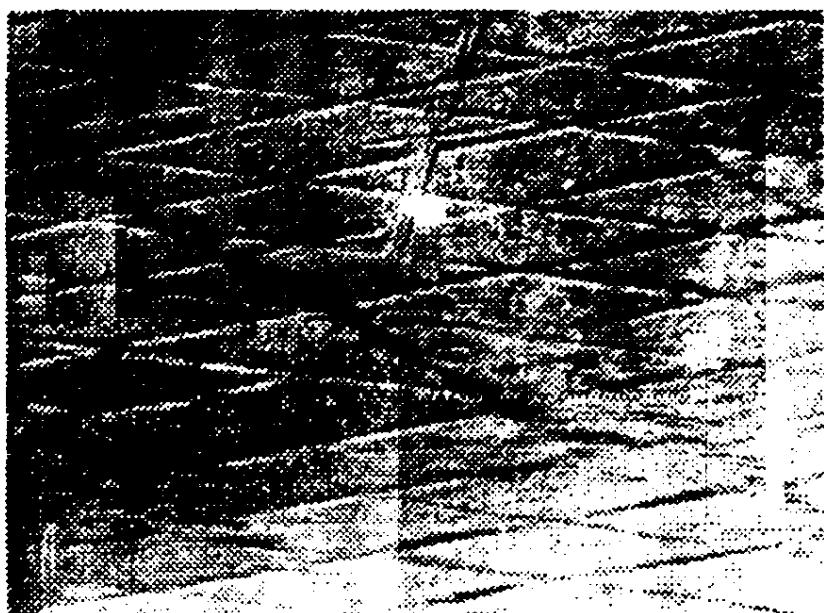


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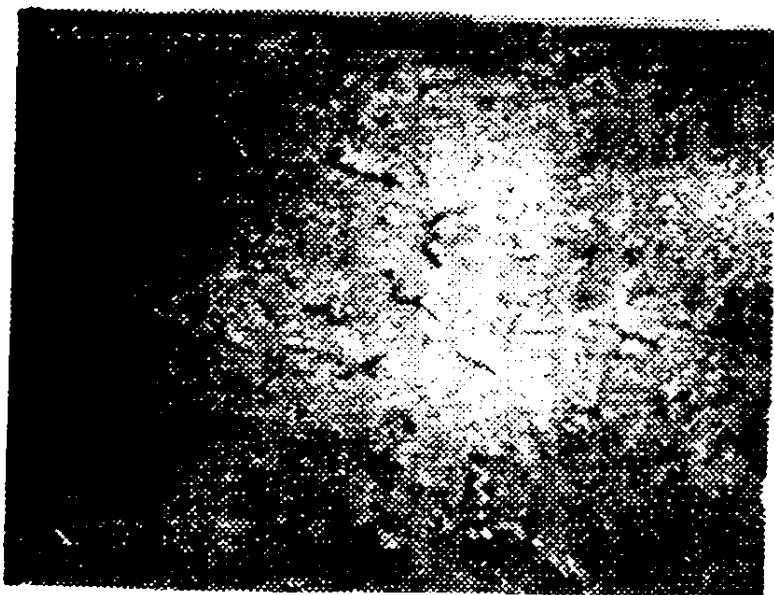
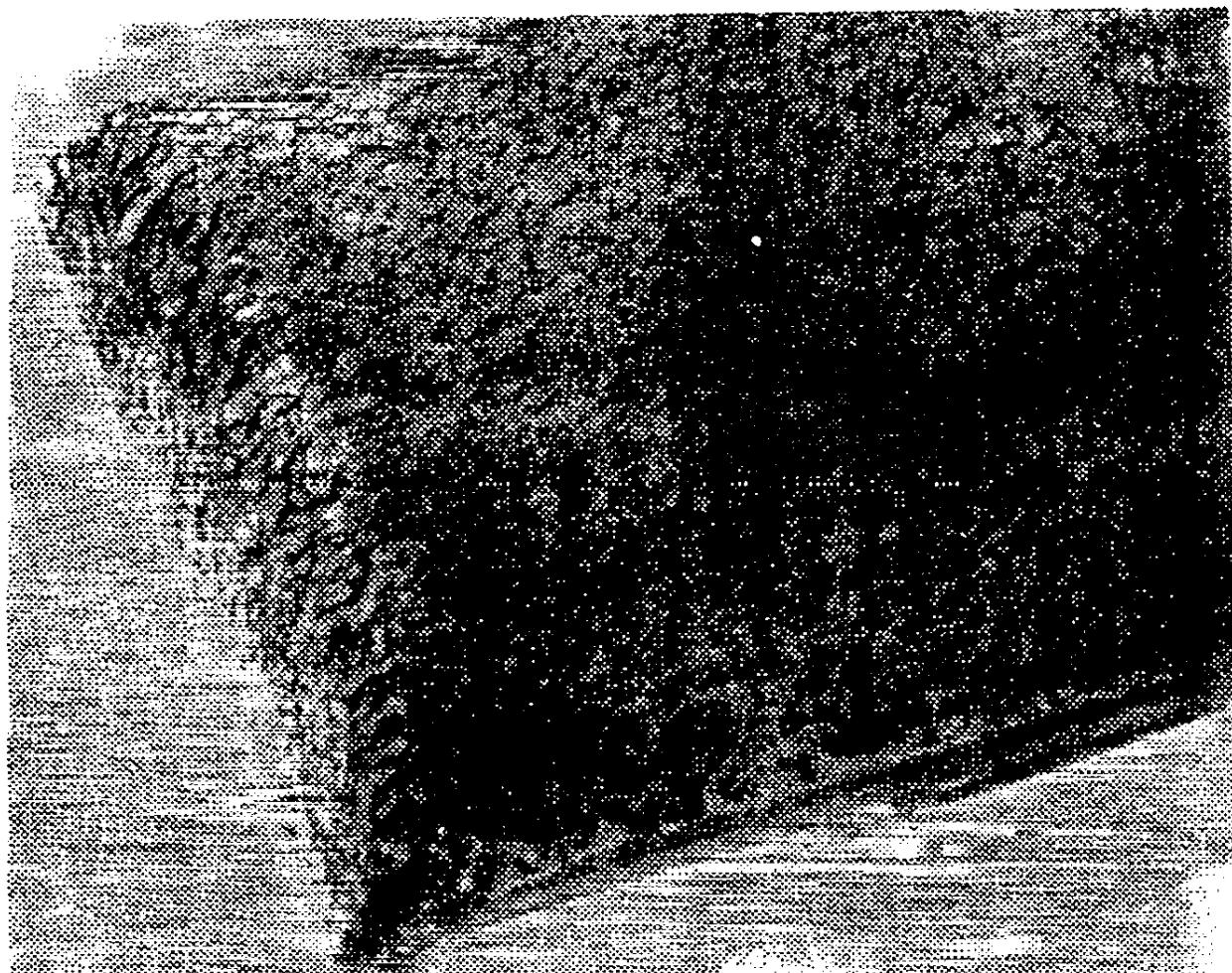


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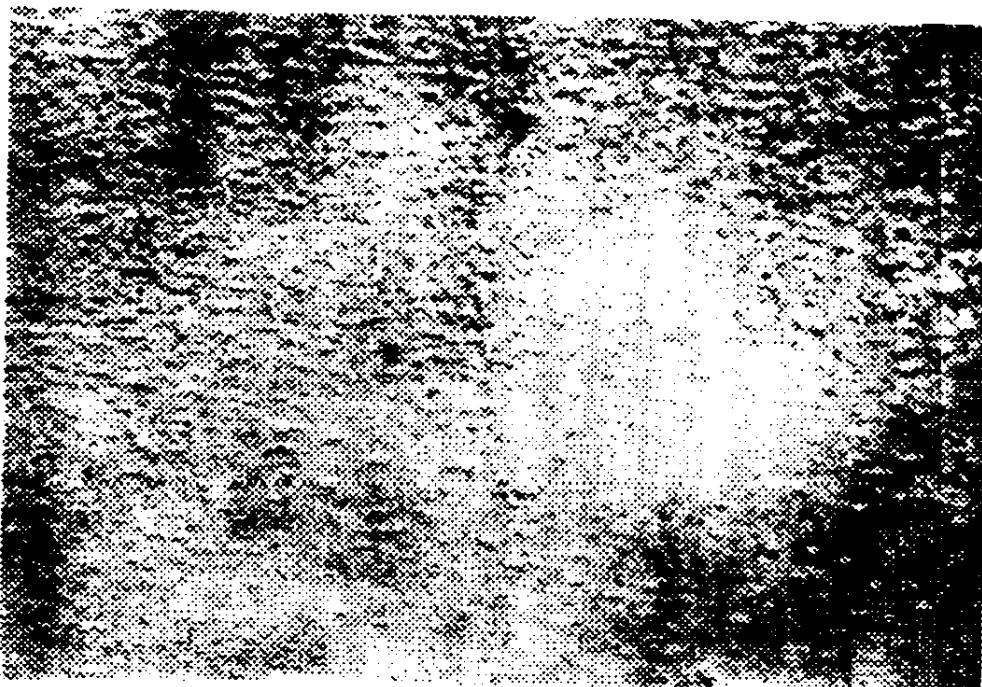
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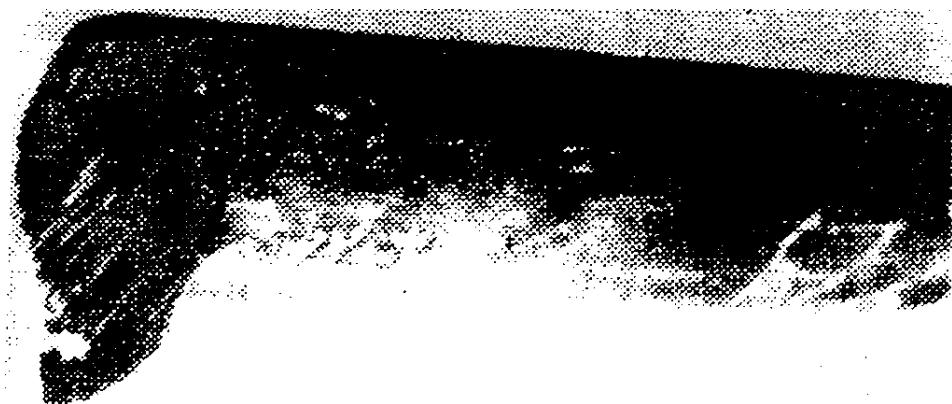


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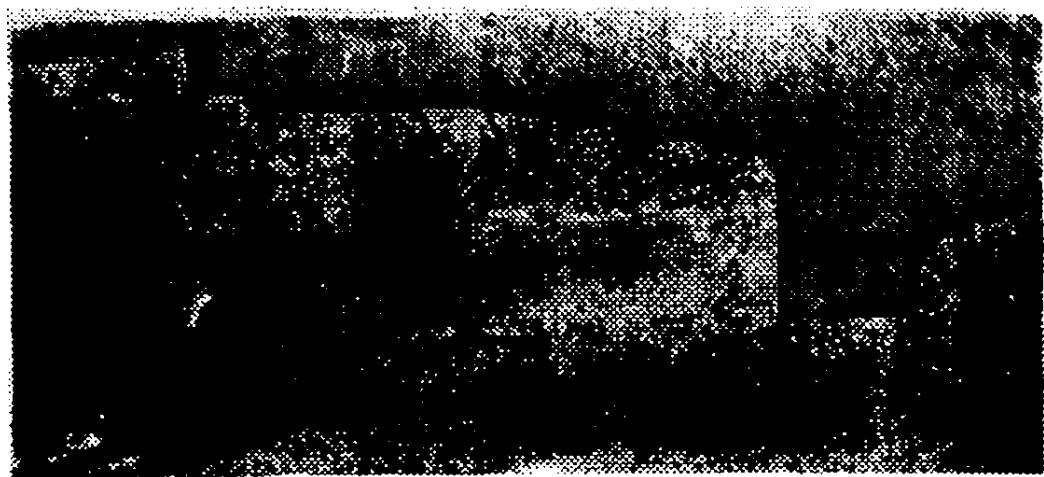
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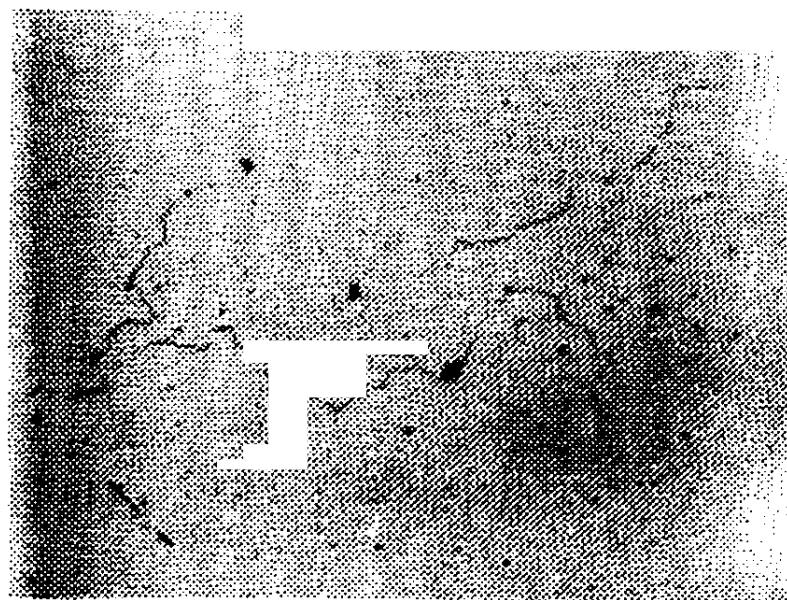


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