RICHARD WILLIAMS

DIRECTOR OF ANIMATION 'WHO FRAMED ROGER RABBIT'

THE ANIMATOR'S SURVIVAL KIT™

A MANUAL OF METHODS, PRINCIPLES AND FORMULAS

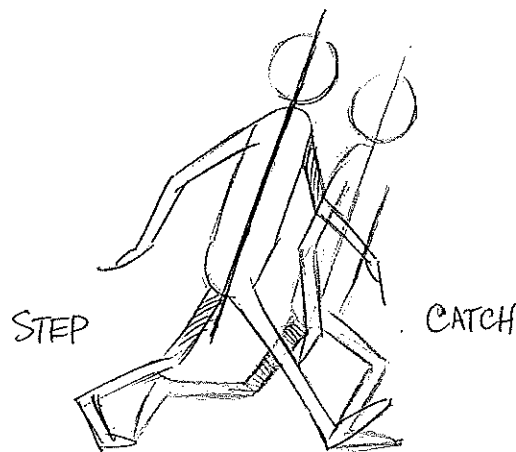FOR CLASSICAL, COMPUTER, GAMES, STOP MOTION AND INTERNET ANIMATORS

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WALKS

Advice from Ken Harris:
'A walk is the *first* thing to learn. Learn walks of all kinds, 'cause walks are about the toughest thing to do right.'
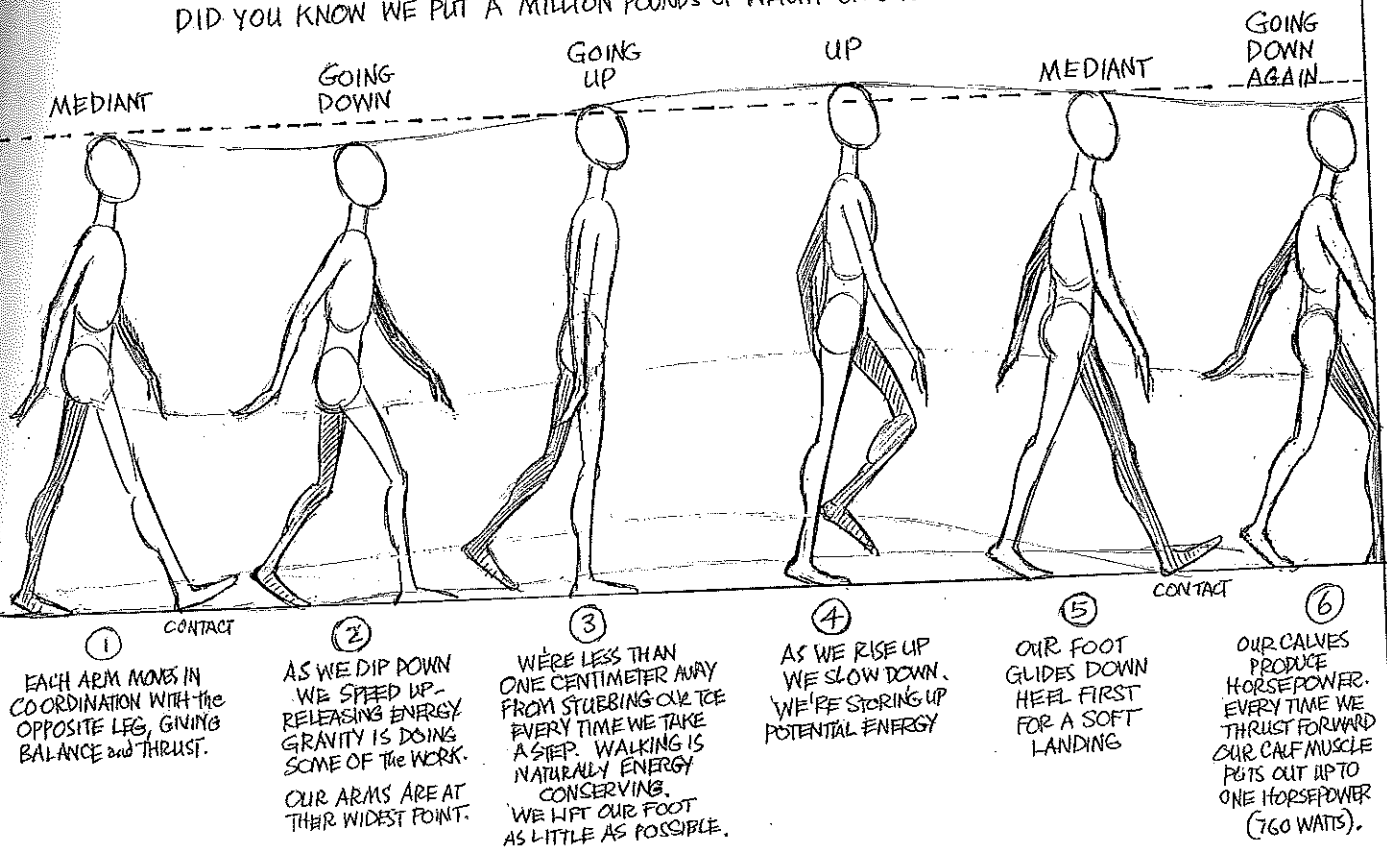

STEP   CATCH

THERE'S A TENDENCY TO LEAN IN A WALK.

THE SLOWER IT IS, THE MORE YOU'RE IN BALANCE –

AND THE FASTER – MORE OUT OF BALANCE.

Walking is a process of falling over and catching yourself just in time. We try to keep from falling over as we move forward. If we don't put our foot down, we'll fall flat on our face. We're going through a series of controlled falls.

We lean forward with our upper bodies and throw out a leg just in time to catch ourselves. Step, catch. Step, catch. Step catch.

Normally we lift our feet off the ground just the bare minimum. That's why it's so easy for us to stub our toes and get tipped over. Just a small crack in the pavement can tip us over.

USELESS(?) BUT INTERESTING SCIENTIFIC INFORMATION ON WALKS:

DID YOU KNOW WE PUT A MILLION POUNDS OF WEIGHT ON OUR FEET EACH DAY?

MEDIANT — GOING DOWN — GOING UP — UP — MEDIANT — GOING DOWN AGAIN

CONTACT

① EACH ARM MOVES IN COORDINATION WITH the OPPOSITE LEG, GIVING BALANCE and THRUST.

② AS WE DIP DOWN WE SPEED UP - RELEASING ENERGY GRAVITY IS DOING SOME OF THE WORK.

OUR ARMS ARE AT THEIR WIDEST POINT.

③ WE'RE LESS THAN ONE CENTIMETER AWAY FROM STUBBING OUR TOE EVERY TIME WE TAKE A STEP. WALKING IS NATURALLY ENERGY CONSERVING, WE LIFT OUR FOOT AS LITTLE AS POSSIBLE.

④ AS WE RISE UP WE SLOW DOWN. WE'RE STORING UP POTENTIAL ENERGY

⑤ OUR FOOT GLIDES DOWN HEEL FIRST FOR A SOFT LANDING

CONTACT

⑥ OUR CALVES PRODUCE HORSEPOWER. EVERY TIME WE THRUST FORWARD OUR CALF MUSCLE PUTS OUT UP TO ONE HORSEPOWER (760 WATTS).

DOESN'T HELP YOU MUCH WHEN YOU'RE ASKED TO ANIMATE THE WALK OF A SAD BUT HAPPY MAN — OR DOES IT?

(BUT) ALL WALKS ARE DIFFERENT.
NO TWO PEOPLE IN THE WORLD WALK THE SAME.

ACTORS TRY TO GET HOLD OF A CHARACTER BY FIGURING OUT HOW HE/SHE/IT WALKS - TRY TO TELL THE WHOLE STORY WITH THE WALK.

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Why is it that we recognize our Uncle Charlie even though we haven't seen him for ten years – walking – back view – out of focus – far away? Because everyone's walk is as individual and distinctive as their face. And one tiny detail will alter everything. There is a massive amount of information in a walk and we read it instantly.

Art Babbitt taught us to look at someone walking in the street from the back view. Follow them along and ask yourself:

- ARE THEY OLD?
- YOUNG?
- WHAT'S THEIR FINANCIAL POSITION?
- STATE OF HEALTH?
- ARE THEY STRICT?
- PERMISSIVE?
- DEPRESSED?
- HOPEFUL?
- SAD?
- HAPPY?
- DRUNK?

Then run around to see the front and check.

So what do we look for?

The big eye-opener for me happened like this. (Unfortunately it's a little politically incorrect, but it's a great example, so here goes.)
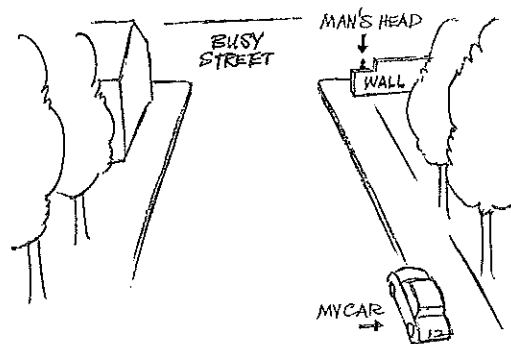
I was in my parked car turning on the ignition, when out of my peripheral vision I semi-consciously noticed a man's head walking behind a wall.
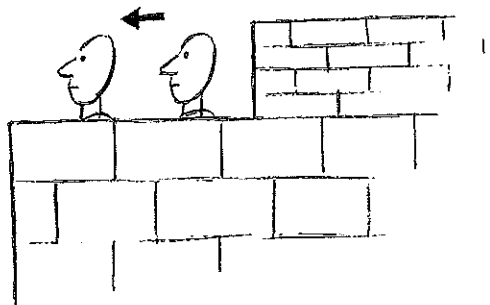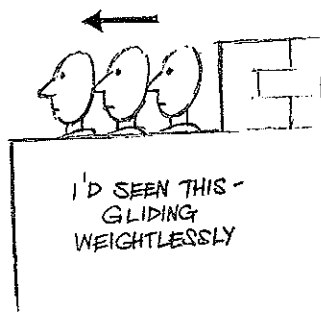
It passed through my mind that he was gay. A gay walk. Now I'm quite short-sighted – my eyes were focused on the ignition key, and it was a busy street with lots of cars and people – and he was about fifty yards away! Wow! How did I know that? This is crazy. All I'd seen was his out-of-focus head moving along behind a wall for a split second!

I started to drive away, then stopped. Wait a minute – I'm supposed to be good at this. I'm supposed to know these things. I have to know *why*! I remembered Art's advice, re-parked, jumped out and ran a block and a half to catch up with the fellow. I walked along behind him, copying him. Sure enough, it was an effeminate walk. Then I got it. He was walking as if on a tightrope and *gliding* along.
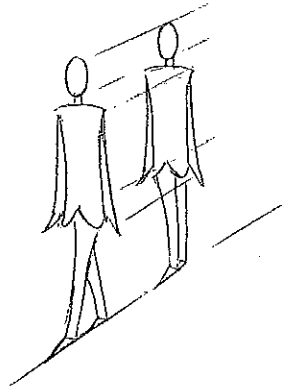
Now how could I have registered this with out-of-focus peripheral vision at fifty yards without even seeing his body? Simple, really. There was *no up and down action on the head*. Try walking on an imaginary tightrope and your head stays level. No ups and downs.

I'D SEEN THIS –
GLIDING
WEIGHTLESSLY

AND IN A
CONVENTIONAL
STEP the BODY
RISES UP ON the
PASSING POSITION.
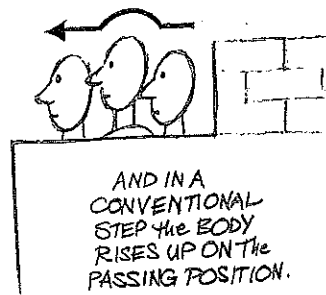
From then on the first thing I always look for is how much up and down action there is on the head. The amount of up and down is the key!
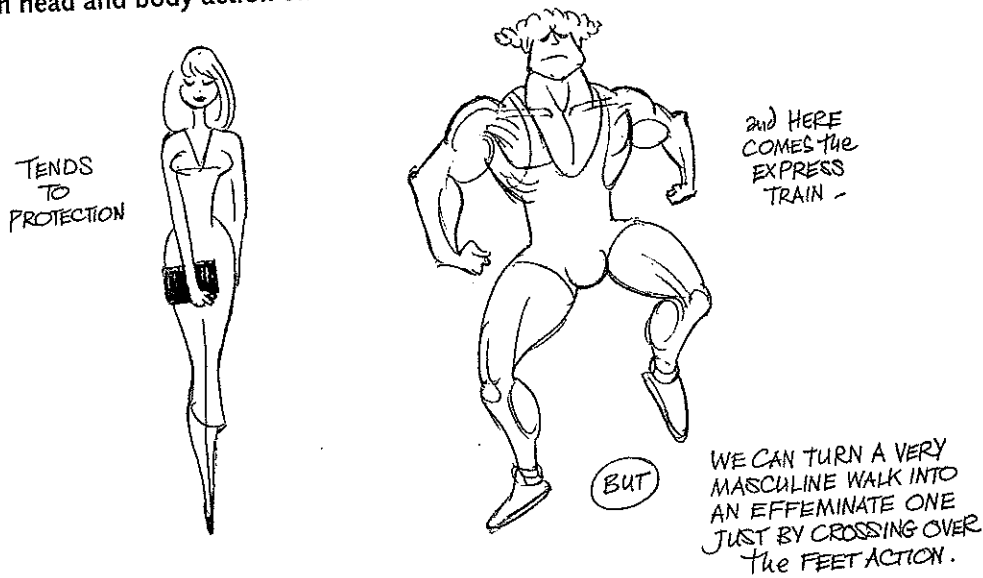
WOMEN OFTEN TAKE SHORT STEPS IN A STRAIGHT LINE – LEGS CLOSE TOGETHER = LITTLE UP and DOWN ON the BODY

AS OPPOSED TO MISTER MACHO:

Women mostly walk with their legs close together, protecting the crotch, resulting in not much up and down action on the head and body. Skirts also restrict their movement.

Mr Macho, however, because of *his* equipment, has his legs well apart so there's lots of up and down head and body action on each stride.
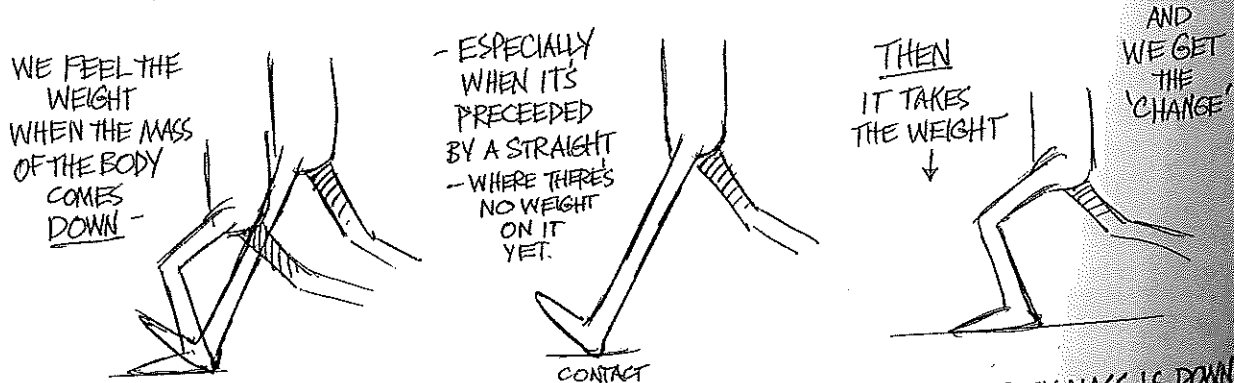
TENDS
TO
PROTECTION

2ND HERE
COMES the
EXPRESS
TRAIN —

BUT

WE CAN TURN A VERY
MASCULINE WALK INTO
AN EFFEMINATE ONE
JUST BY CROSSING OVER
the FEET ACTION.

GETTING THE WEIGHT

WE DON'T GET WEIGHT BY A SMOOTH LEVEL MOVEMENT.

When we trace off a live action walk (the fancy word is rotoscoping), it doesn't work very well. Obviously, it works in the live action – but when you trace it accurately, it floats. Nobody really knows why. So we increase the ups and the downs – accentuate or exaggerate the ups and downs – and it works.

IT'S THE UP AND DOWN POSITION OF YOUR MASSES THAT GIVES YOU THE FEELING OF WEIGHT.

WE FEEL THE
WEIGHT
WHEN THE MASS
OF THE BODY
COMES
DOWN —

— ESPECIALLY
WHEN IT'S
PRECEEDED
BY A STRAIGHT
— WHERE THERE'S
NO WEIGHT
ON IT
YET.

CONTACT

THEN
IT TAKES
THE WEIGHT

AND
WE GET
THE
'CHANGE'

IT'S THE DOWN POSITION WHERE THE LEGS ARE BENT AND THE BODY MASS IS DOWN—
WHERE WE FEEL THE WEIGHT.

Before we start building walks and 'inventing' walks — here's what happens in a so-called 'normal' walk:

FIRST WE'LL MAKE THE 2 CONTACT POSITIONS —
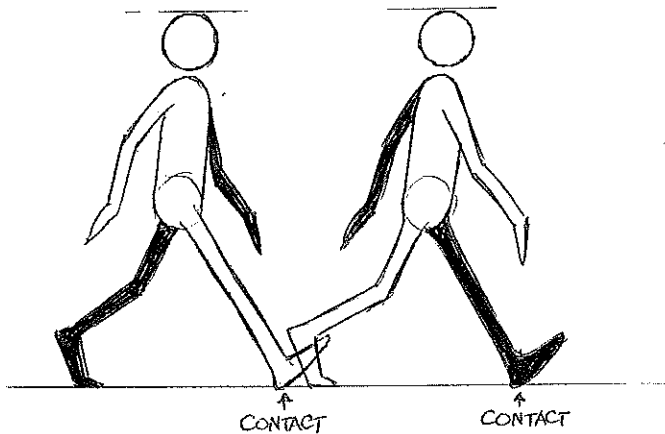
IN A NORMAL, CONVENTIONAL WALK, THE ARMS ARE ALWAYS OPPOSITE TO THE LEGS TO GIVE BALANCE AND THRUST.

↑ CONTACT   ↑ CONTACT

PASSING POSITION
(SLIGHTLY HIGHER)
(THAN MID-POINT)
↑

NEXT WE'LL PUT IN THE PASSING POSITION — — THE MIDDLE POSITION — OR 'BREAKDOWN' — THE HALF-WAY PHASE
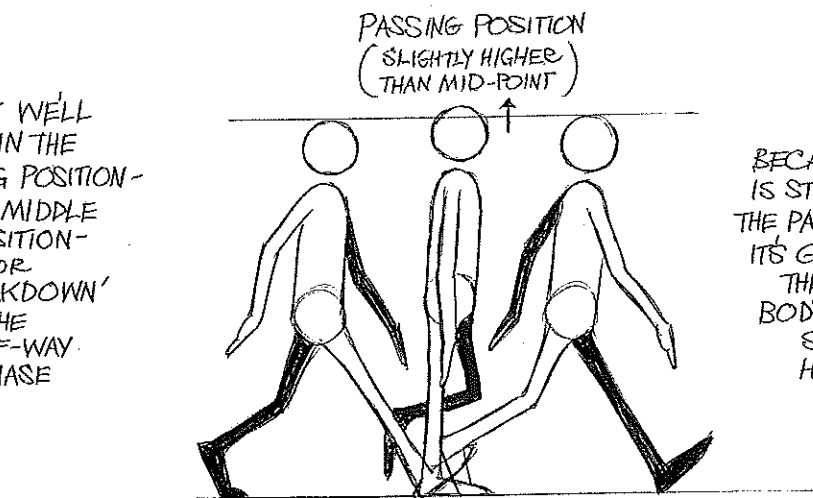
BECAUSE THE LEG IS STRAIGHT UP ON THE PASSING POSITION, IT'S GOING TO LIFT THE PELVIS, BODY and HEAD SLIGHTLY HIGHER.

DOWN
↓

NEXT COMES THE DOWN POSITION — WHERE THE BENT LEG TAKES THE WEIGHT
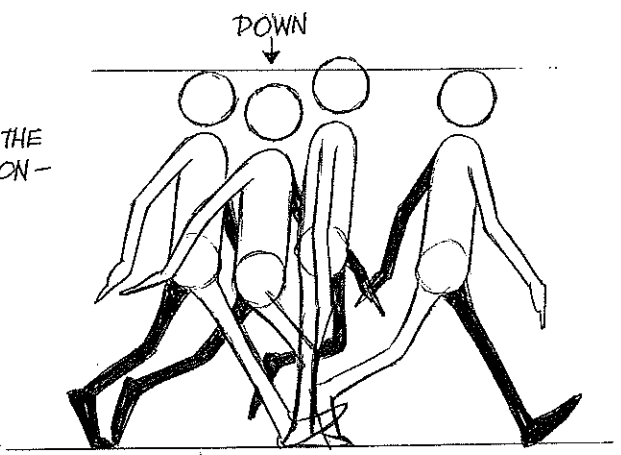
AND JUST TO COMPLICATE LIFE - IN A NORMAL WALK THE ARM SWING IS AT IT'S WIDEST ON THE DOWN POSITION
(AND NOT ON the CONTACT)
(POSITION AS WE'D PREFER.)

WE CAN IGNORE THIS AS WE PROCEED BUT WE MIGHT AS WELL UNDERSTAND THE NORM BEFORE WE START MESSING AROUND.

NEXT WE PUT IN
THE UP POSITION -
-THE PUSH-OFF.

UP ↑
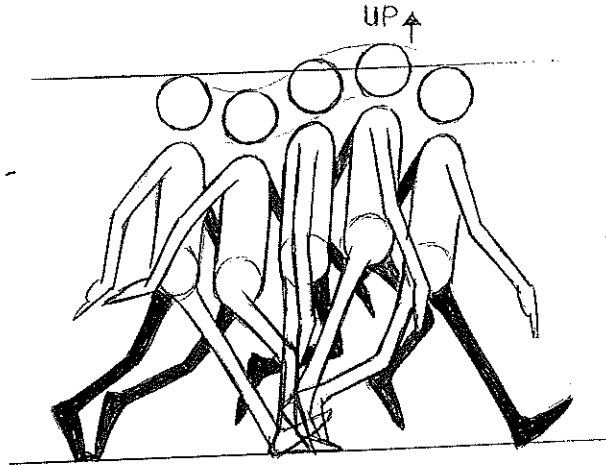
The FOOT PUSHING OFF
LIFTS the PELVIS,
BODY and HEAD UP
TO ITS HIGHEST POSITION
- THEN The LEG IS THROWN
OUT TO CATCH US ON
The CONTACT POSITION
- SO WE DON'T FALL
ON OUR FACE.

LET'S SPREAD
IT OUT AND
EXAGGERATE IT
A LITTLE MORE
SO IT'S
CLEARER...

CONTACT   DOWN   PASS POS   UP   CONTACT
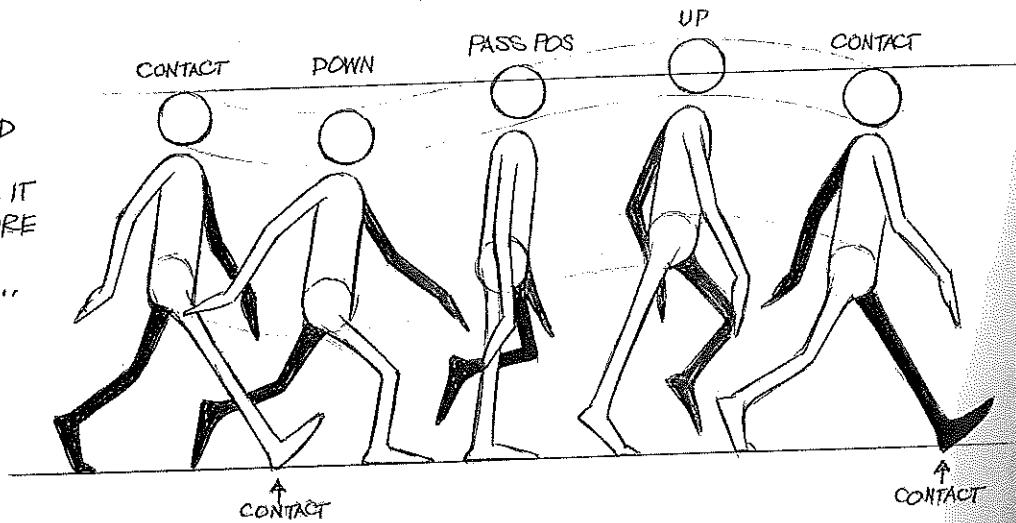
CONTACT   CONTACT

SO, IN A NORMAL 'REALISTIC' WALK
The WEIGHT GOES (DOWN) JUST AFTER the STEP -
JUST AFTER the CONTACT.
2ω) the WEIGHT GOES (UP) JUST AFTER the PASSING POSITION.

HERE IT IS
AGAIN -
(EXAGGERATED)

CONTACT
— MEDIANT —

The DOWN
The LEG BENDS
ABSORBING
The FORCE
of the MOVE

PASS POSITION
(GOING-UP)

The UP

CONTACT
— MEDIANT —

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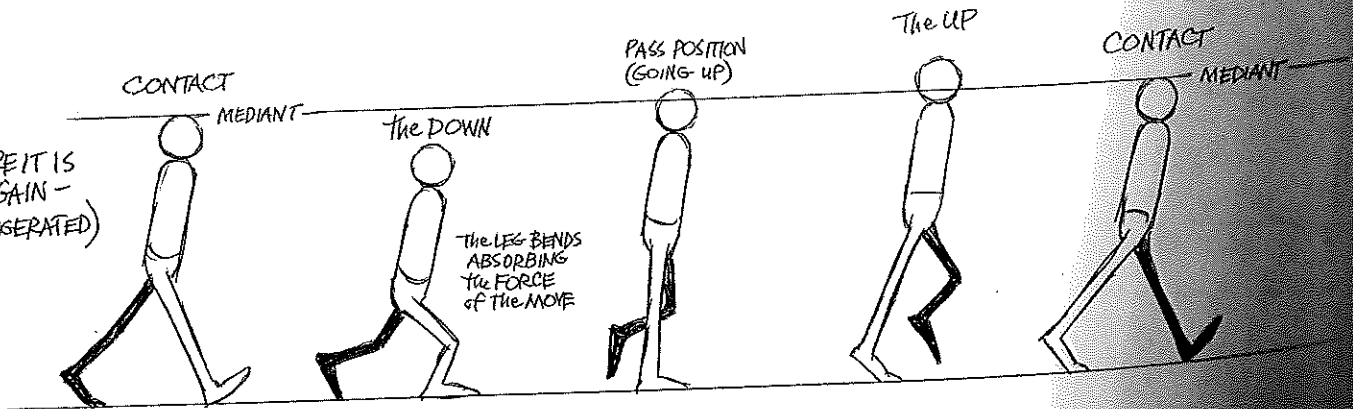
SET THE TEMPO

THE FIRST THING TO DO IN A WALK IS SET A BEAT. GENERALLY PEOPLE WALK ON 12'S — MARCH TIME (HALF A SECOND PER STEP. TWO STEPS PER SECOND.)

BUT LAZY ANIMATORS DON'T LIKE TO DO IT ON 12'S. IT'S HARD TO DIVIDE UP. YOU HAVE TO USE 'THIRDS' — THINK PARTLY IN THIRDS.

EITHER
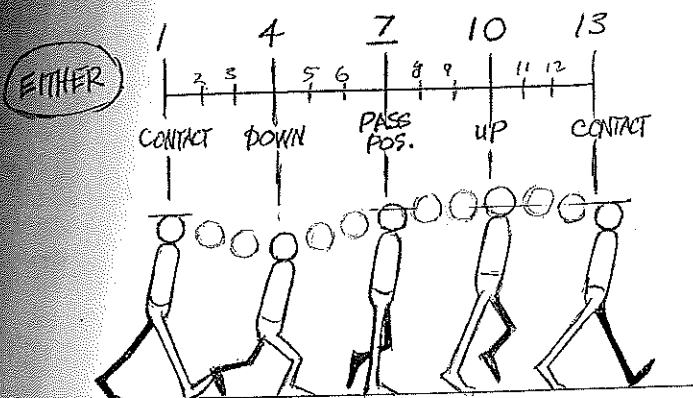
THE IN BETWEENS ARE GOING TO BE ON THIRDS.

OR
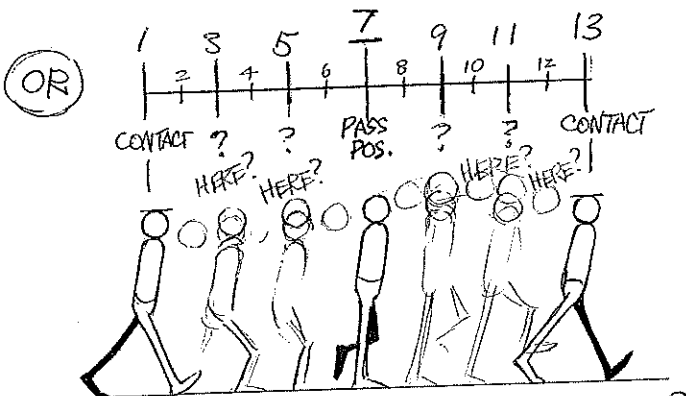
OOPS — NOW WHERE DO WE PUT THE DOWN OR UP? HEY, THIS IS GETTING HARD — ESPECIALLY WHEN WE GET INTO THE ARMS AND HEAD, AND 'ACTING' AND DRAPERY — MAYBE THERE'S AN EASIER WAY?

THERE IS AN EASIER WAY — HAVE HIM/HER WALK ON 16'S — OR WALK ON 8'S. MUCH EASIER TO WALK ON 16'S — IT'S EASY TO DIVIDE UP — SAME THING ON 8'S. (EACH STEP = ⅔ SEC) (3 STEPS PER SEC.)

ON 16'S
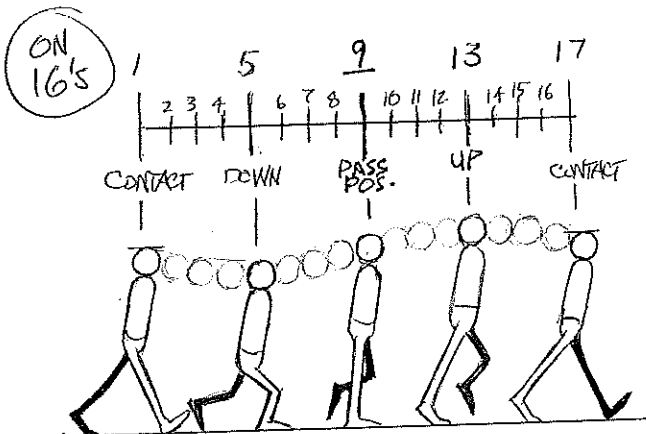
WHEW, THAT MAKES LIFE EASIER. NICE EVEN DIVISIONS NOW —
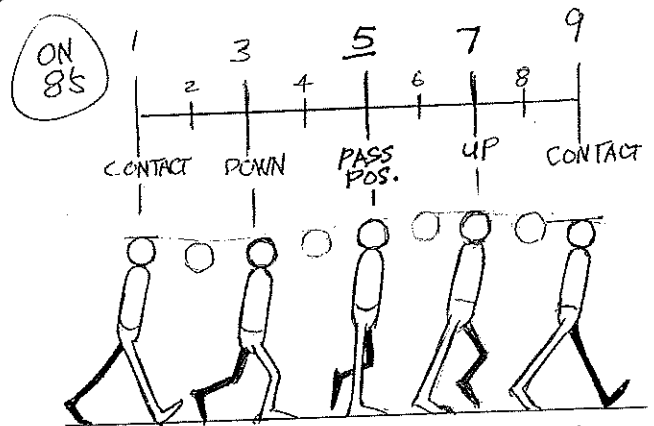
ON 8'S

(REDUCED UP AND DOWN ACTION — SINCE ITS TAKING PLACE IN A SHORTER TIME)

THIS IS WHY CARTOON WALKS ARE OFTEN ON 8'S. BUMP, BUMP, BUMP, 3 STEPS A SECOND.

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4	FRAMES =	A VERY FAST RUN (6 STEPS A SECOND)
6	FRAMES =	A RUN OR VERY FAST WALK (4 STEPS A SECOND)
8	FRAMES =	SLOW RUN OR 'CARTOON' WALK (3 STEPS A SECOND)
12	FRAMES =	BRISK, BUSINESS-LIKE WALK - 'NATURAL' WALK (2 STEPS A SECOND)
16	FRAMES =	STROLLING WALK - MORE LEISURELY (²⁄₃ OF A SECOND PER STEP)
20	FRAMES =	ELDERLY OR TIRED PERSON (ALMOST A SECOND PER STEP)
24	FRAMES =	SLOW STEP (ONE STEP PER SECOND)
32	FRAMES =	...'SHOW ME THE WAY....TO GO HOME'...

The best way to time a walk (or anything else) is to act it out and time yourself with a stopwatch. Also, acting it out with a metronome is a great help.

I naturally think in seconds – 'one Mississippi' or 'one little monkey' or 'a thousand and one, a thousand and two' etc.
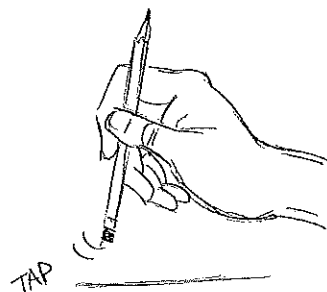
Ken Harris thought in feet, probably because he was so footage conscious – having to produce thirty feet of animation a week. He'd tap his upside-down pencil *exactly* every two thirds of a second as we'd act things out.

Milt Kahl told me that on his first week at Disney's he bought a stopwatch and went downtown in the lunch break and timed people walking – normal walks, people just going somewhere. He said they were *invariably* on twelve exposures – right on the nose. March time.

As a result, he used to beat off twelve exposures as his reference point. Anything he timed was just so much more or so much less than that twelve exposures. He said he used to say 'Well, it's about 8s.' He said it made it easy for him – or *easier* anyway.

Chuck Jones said the *Roadrunner* films had a musical tempo built into them. He'd time the whole film out, hitting things on a set beat so they had a musical, rhythmic integrity already built in. Then the musician could hit the beat, ignore it or run the music against it.

Chuck told me that they used to have exposure sheets with a coloured line printed right across the page for every sixteen frames and another one marking every twelve frames. He called them '16 sheets' or '12 sheets' I guess '8 sheets' would be the normal sheets.

I mentioned once to Art Babbitt that I liked the timing on the *Tom and Jerrys*. 'Oh yeah,' he said dismissively, 'All on 8s.'

That kind of tightly synchronized musical timing is rare today. They call it 'Mickey Mousing' where you accent everything – it's a derogatory term nowadays and considered corny. But it can be extremely effective.

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In trying out walks, it's best to keep the figure simple. It's quick to do and easy to fix – easy to make changes.

ALSO, IN DOING THESE WALKS – TAKE A FEW STEPS ACROSS the PAGE OR SCREEN –
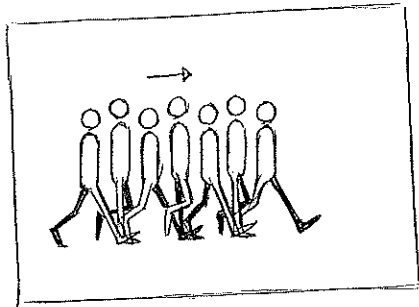
(DON'T) TRY TO WORK OUT A CYCLE WALKING IN PLACE WITH The FEET SLIDING BACK, ETC. THAT ALL BECOMES TOO TECHNICAL. WE WANT OUR BRAIN FREE TO CONCENTRATE ON AN INTERESTING WALK PROGRESSING FORWARD.

WE CAN WORK OUT A CYCLE FOR the WALK LATER... PERHAPS JUST FOR the FEET and BODY. BUT THEN HAVE The ARMS and the HEAD PERFORMING SEPARATELY.

CYCLES ARE MECHANICAL and LOOK JUST LIKE WHAT THEY ARE – CYCLES.

CHUCK JONES TELLS OF HIS TINY 3 YEAR OLD GRANDDAUGHTER SAYING, "GRANDAD, WHY DOES The SAME WAVE KEEP LAPPING ON The ISLAND?"

Incidentally, if you are using colours as I am here, it works just fine when you film them. I often have a lot of colours going at first, and you still see the action clearly.

Now we're going to start taking things out of the normal:

(The PASSING POSITION OR BREAKDOWN)

THERE'S A VERY SIMPLE WAY TO BUILD A WALK. START WITH JUST 3 DRAWINGS –

FIRST
WE MAKE OUR
TWO
CONTACT
POSITIONS –
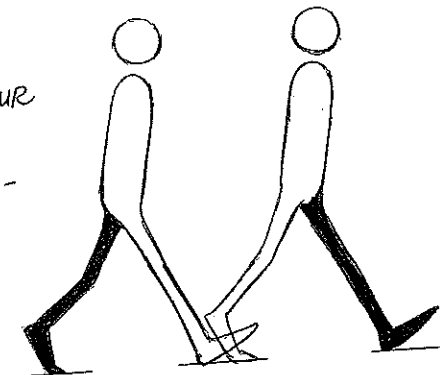
PASS POS.

THEN PUT IN
the MIDDLE POSITION—
The PASSING POSITION—
OR
BREAKDOWN
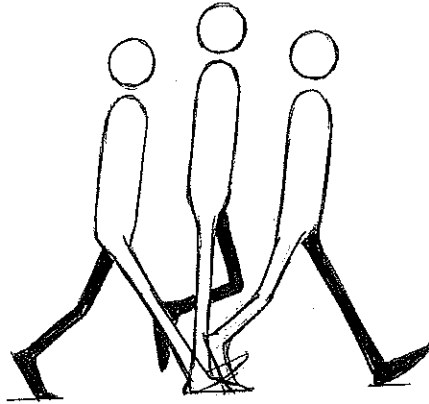
THIS TIME
WE'RE RAISING IT
HIGHER THAN
PREVIOUSLY.
WE'RE MAKING IT
THE UP POSITION—
—THE HIGH.

(WE'VE OMITTED
The BENT LEG
TAKING The WEIGHT
AND OUR CONTACTS
WILL ACT AS
the LOW)

When we join these up with connecting drawings, the walk will still have a feeling of weight because of the up and down. We can make tremendous use of this simple three drawing device.

BUT LOOK WHAT HAPPENS IF WE GO DOWN ON THE PASSING POSITION!

PASS
POS.

WE GET A VERY
DIFFERENT WALK—
A 'CARTOONY' WALK
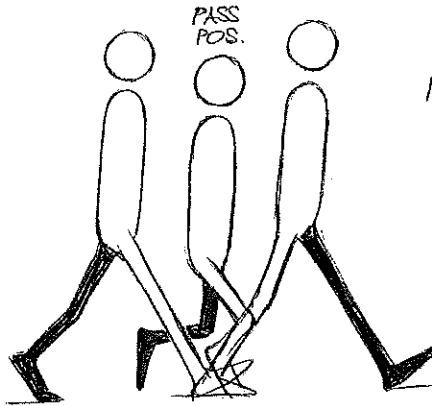
NOW THE PASSING
POSITION IS THE
LOW AND THE
CONTACTS ACT
AS THE HIGH—
STILL GIVING A
FEELING OF
WEIGHT.

THE CRUCIAL THING IS THIS MIDDLE POSITION AND WHERE WE PUT IT.

PASS
POS.

SQUASH
WITH A BEND?
LIKE A KIDNEY?

PASS
POS.
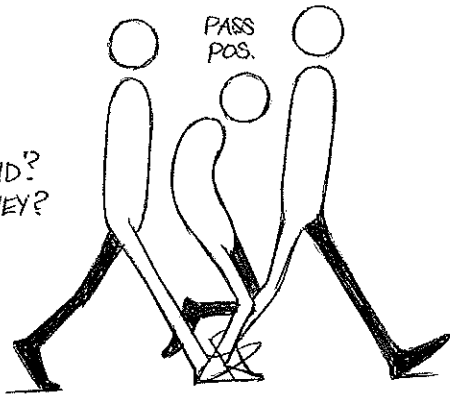
HOW
ABOUT
THIS
ONE?
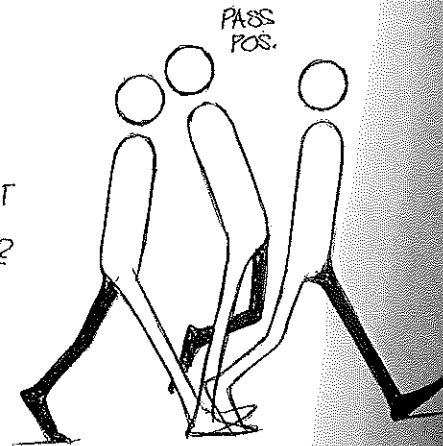
THESE CONTACTS ARE ALL THE SAME BUT THE MIDDLE POSITION UTTERLY CHANGES THE WALK.

DELAY THE FOOT?
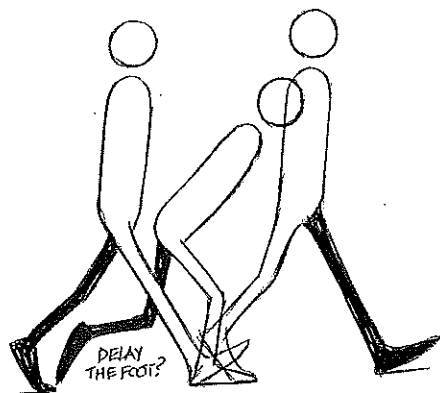
(OBVIOUSLY WE'LL NEED THE TIME TO ACCOMODATE BROAD MOVES LIKE THIS)
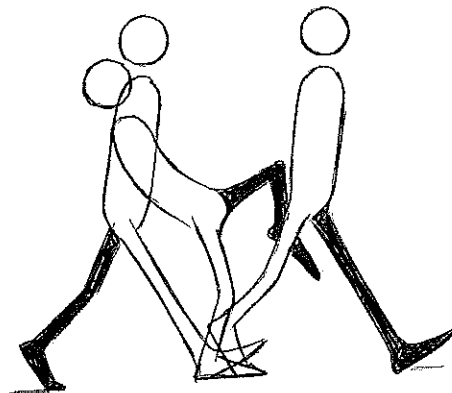
IN A SLOW STEP WE MIGHT GO AS FAR AS THIS—ALMOST A SNEAK.

WHAT IF THE FEET SWING OUT SIDEWAYS ON THE PASSING POSITIONS?
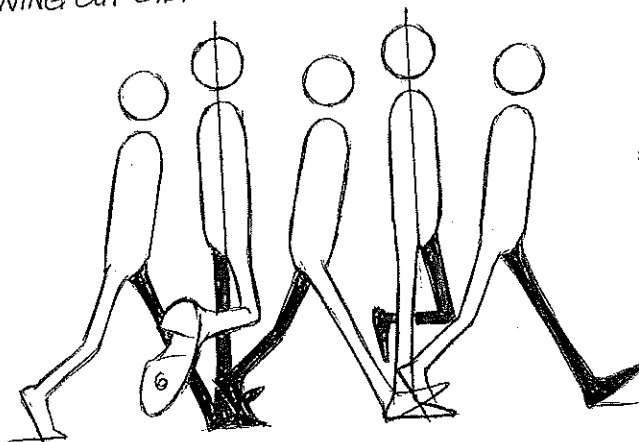
AND MAYBE STRAIGHTEN THE BODY ON THE PASS POSITIONS?

OR JUST TILT THE HEAD AND SHOULDERS SIDEWAYS ON THE PASS POSITIONS—

THE KEY THING IS WHERE DO WE WANT TO PUT THE MIDDLE POSITION—
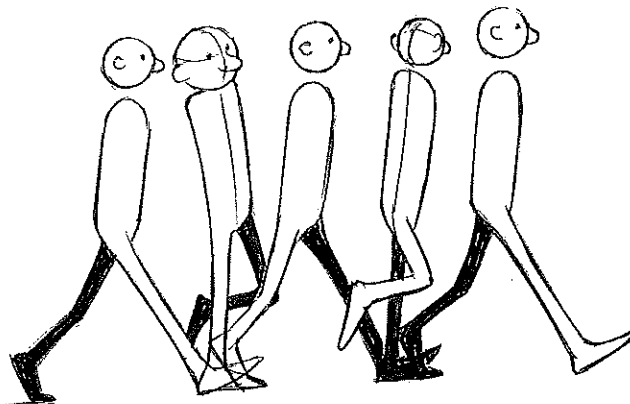
NOT TO MENTION WHAT WE CAN DO WITH THE HEAD, HANDS, ARMS OR FEET—

THE VARIATIONS ARE ENDLESS—

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AND WHY SHOULD WE BE STUCK WITH THE SAME SHAPE?

HOW ABOUT
INSTEAD OF RAISING
The WHOLE BODY
ON The PASS POS-
STRETCH IT.
GIVES
FLEXIBILITY
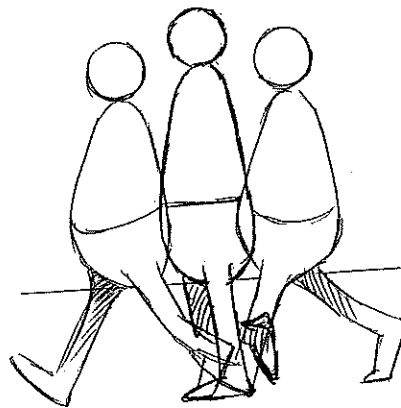
LET'S SAY
IT'S A HEAVIER
MAN - GOT A
POT ON HIM.

PELVIS LEVEL

OR
CONVERSLY
SQUASH IT.
GIVES
FLEXIBILITY
WITHIN
The WALK
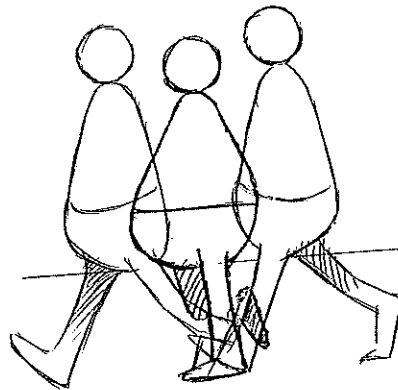
KEEPING
the
PELYIS
LEVEL
THRO'OUT.

To my knowledge, I think Art Babbitt may have been the first one to depart from the normal walk or the cliché cartoon walks. Certainly he was a great exponent of the 'invented' walk. He became famous for the eccentric walks he gave Goofy – which made Goofy into a star. He even put the feet on backwards! He made it look perfectly acceptable and people didn't realize they were backwards!

Art's whole credo was: 'Invent! Every rule in animation is there to be broken – if you have the inventiveness and curiosity to look beyond what exists.' In other words, 'Learn the rules and then learn how to break them.'

This opened up a whole Pandora's box of invention.

Art always said, 'The animation medium is very unusual. We can accomplish actions no human could possibly do. *And* make it look convincing!'

This eccentric passing position idea is a terrifically useful device. We can put it anywhere and where we put it has a huge effect on the action. And who says we can't put it anywhere we want? There's nothing to stop us.

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For that matter, we can *keep on* breaking things down into weird places – provided we allow enough screen time to accommodate the movement.

PASS POS.

TAKE THIS ONE FOR INSTANCE –
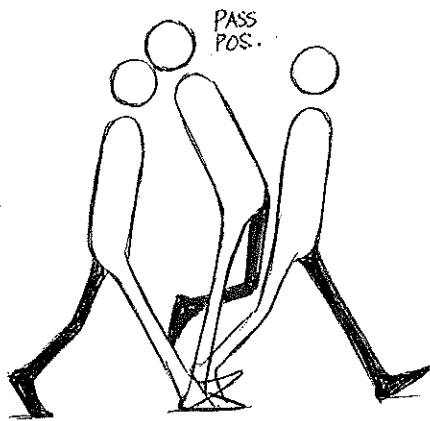
WE CAN STILL GO DOWN TO TAKE THE WEIGHT AND STILL GO HIGHER ON THE PUSH·OFF

UP

PASS POS
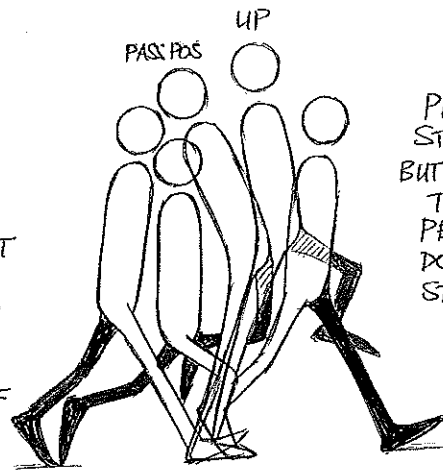
PRETTY STRANGE – BUT WHY NOT TRY IT? PEOPLE DO MOVE STRANGELY

INBTWN   PASS POS   DOWN

THIS WOULD BE PRETTY WILD –

PUT THE DOWN WHERE THE UP WOULD NORMALLY BE – AND BEND THE LEG.
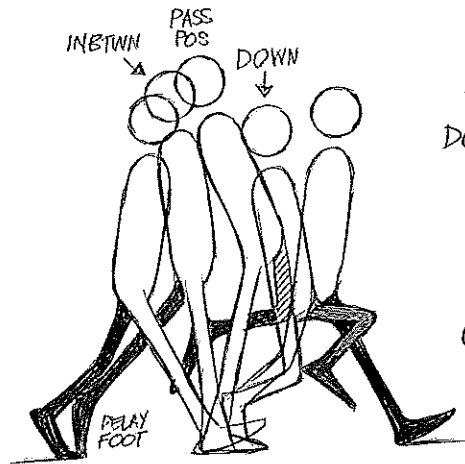
WHERE THE DOWN POSITION WAS – PUT A STRAIGHT INBETWEEN BUT DELAY THE LEG (FOR BALANCE)

DELAY FOOT

Anyway, back to the normal:

2 WAYS TO PLAN A WALK

REVIEWING the 'CONTACT' METHOD:

FIRST WE MAKE THE CONTACT POSITIONS THEN WE PUT IN THE PASSING POSITION (NORMAL)

PASS POS
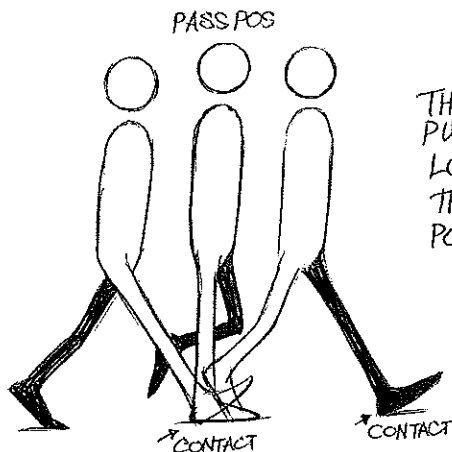
CONTACT   CONTACT

THEN WE PUT IN THE LOW AND THE HIGH POSITIONS –

LOW   HIGH

115
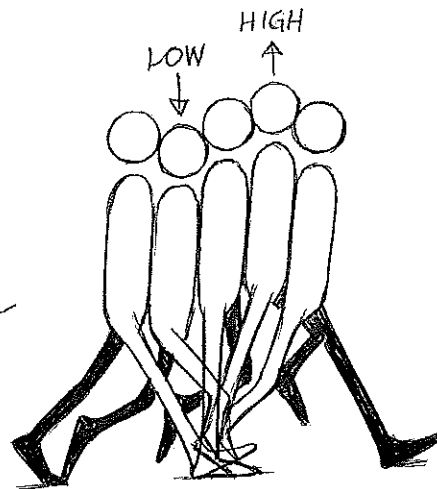
I've found that this contact method is *the one that gets you through – takes you home*. It's especially suitable for natural actions – which is what we mostly have to do. I've found it to be the best way to do most things.

Milt Kahl worked this way. 'In a walk, or anything, I make the contact positions first – where the feet contact the ground with no weight on them yet. It's kind of a middle position for the head and body parts – neither an up or down. I know where the highs and lows are and then I break it down. Another reason I do it is because it makes a scene easy to plan.'

'I always start off with that contact because it's a dynamic, moving thing. And it's much better than starting with the weight already on the foot, which would be a very static pose!'*

* WHICH IS EXACTLY WHAT THE SECOND SYSTEM DOES.

THIS IS THE WAY ART BABBITT OFTEN PLANNED A WALK — AND IT HAS
A VERY CUNNING THING TO IT:

START OFF
WITH THE
2 DOWN POSITIONS

(FOR WANT OF A
BETTER TERM
WE'LL CALL IT
The DOWN POSITION
METHOD.)

DOWN   DOWN
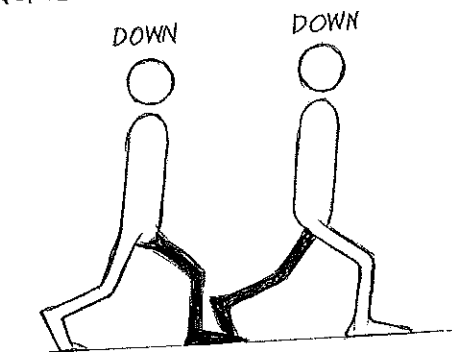
NOW PUT IN
The PASSING
POSITION –
– FOR NOW,
RIGHT IN THE
MIDDLE

DOWN   UP   DOWN
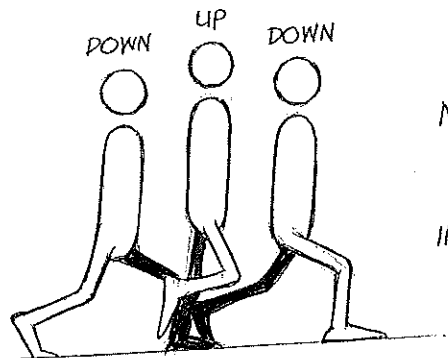
NOW WE'VE GOT
BOTH THE UP
AND THE DOWN
COVERED
IN JUST 3 DRAWINGS

AND ONE OF OUR
NEXT MID-POSITIONS WILL
BE THE CONTACT.
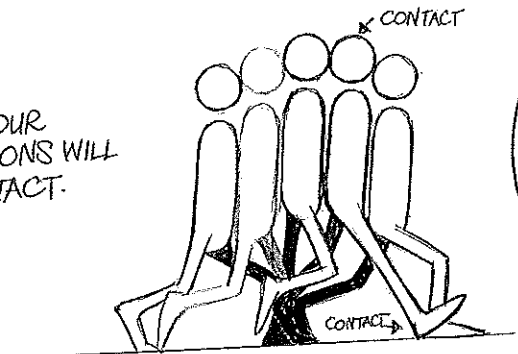
CONTACT

CONTACT

(ALTHOUGH IT'S
KIND OF AWKWARD
TO GET GOOD
CONTACT POSITIONS
THIS WAY –)

116

The cleverness of this approach is that we've already taken care of the up and down in the first three drawings. Of course, we can put the passing position up, down or sideways – anywhere we want. But having the downs already set helps us invent; it gives us a simple grid on which to get complicated, if we want.

We know it'll already have weight and so we're free to mess around and invent eccentric actions, or actions that couldn't happen in the real world.

Again, we're not stuck with one method or the other. Why not have both? Not only but also . . .

I highly recommend the contact approach for general use, but starting with the down position is very useful for unconventional invention.

From now on we'll use both approaches.

ITS KIND OF ACADEMIC, BUT IF WE TAKE BOTH METHODS...

CONTACT DOWN   PASS POS UP   CONTACT

DOWN   PASS POS UP   DOWN

AND PUSH THEM TOGETHER —

CONTACT METHOD   DOWN POS· METHOD
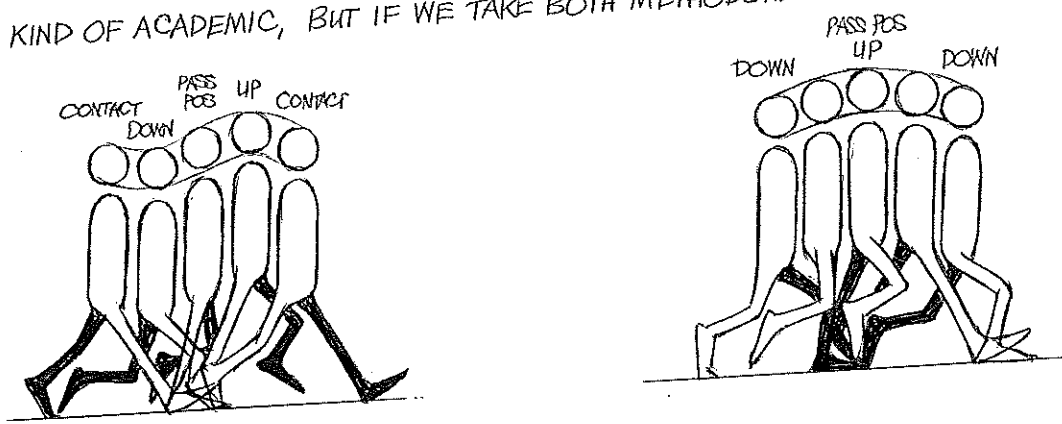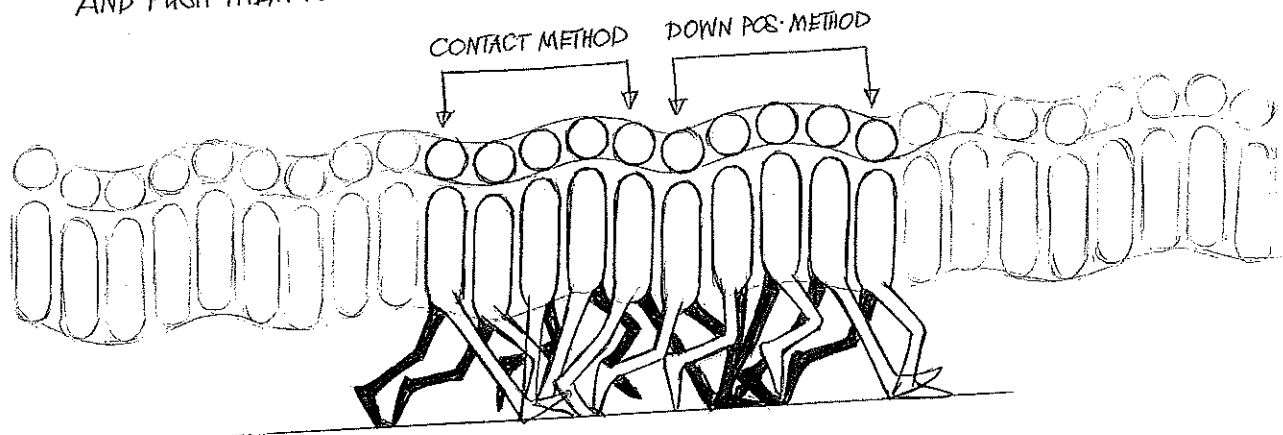
— WE GET ALL The UP and DOWN PHASES OF A NORMAL WALK.
ITS The SAME THING. WE'RE JUST STARTING OFF ONE PHASE EARLIER OR ONE PHASE LATER.

117

the DOUBLE BOUNCE

'Truckin' on down.' The double bounce walk shows energetic optimism – the North American 'can do' attitude. They used this walk like mad in the early 1930s – lots of characters (bugs and things) all trucking around doing jazzy double bounces.

THE IDEA IS 2 BOUNCES PER STEP. YOU BOUNCE TWICE.
YOU GO DOWN (OR UP) TWICE INSTEAD OF ONCE TO THE STEP.

SAY IT'S A 16 FRAME STEP (ON ONES BECAUSE THERE'S A LOT GOING ON.)
WE'LL START WITH THE BENT LEG DOWN – SPREAD THE LEGS APART FOR CLARITY:
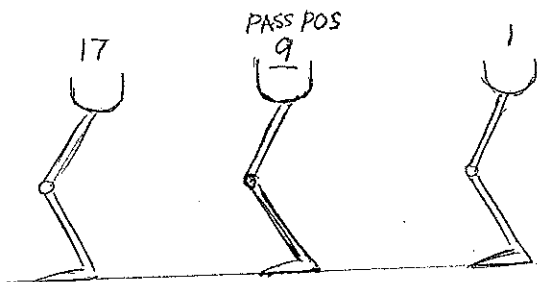
PASS POS
9
17   1

PUT THE PASS POS
IN THE MIDDLE
BUT ALSO DOWN

17   13   PASS POS   5   1
          9
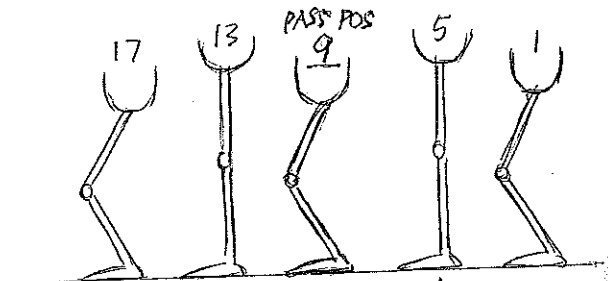
ADD IN THE NEXT TWO MID-
POSITIONS UP – AS THE HIGHS.
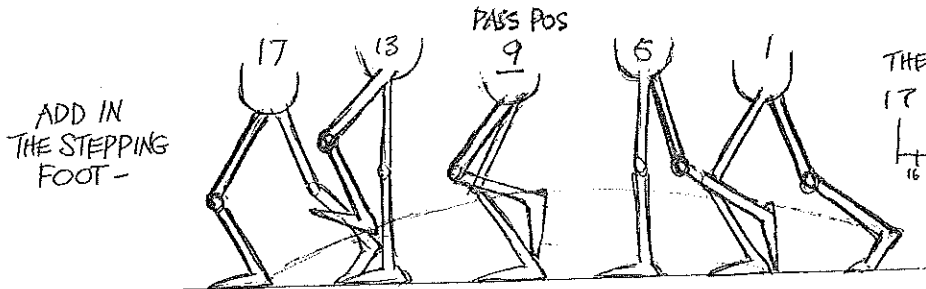
ADD IN
THE STEPPING
FOOT –

17   13   PASS POS   5   1
          9

THE CHART IS LIKE THIS:
17   13   9   5   1
16 15 14 12 11 10 8 7 6 4 3 2

SO IT'S
LIKE
THIS –

DOWN UP   PASS POS UP   DOWN
              DOWN
17   13   9   5   1

OR
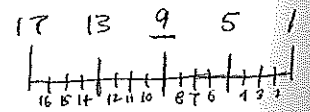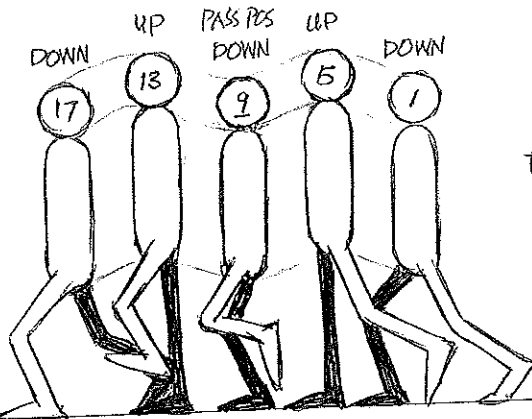
CONVERSLY
LET'S USE
THE CONTACT
APPROACH –
START WITH
THE
CONTACTS

UP   DOWN PASS POS DOWN UP
                 UP
17   13   9   5   1
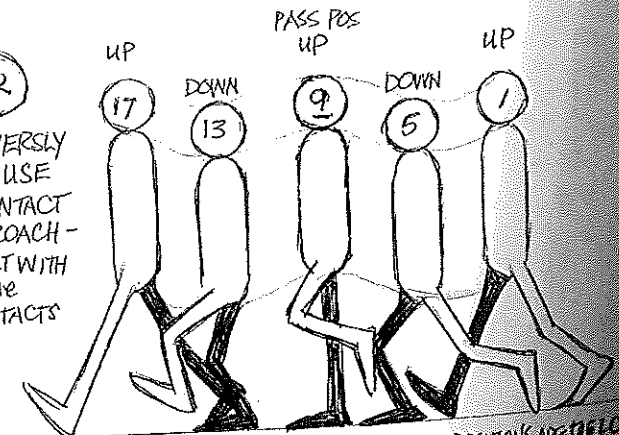
CONTACTS + PASS POS ARE THE HIGHS AND MID POSITIONS ARE THE LOWS

118

I MADE THIS DOUBLE BOUNCE WALK BY COMBINING THE TWO APPROACHES.
I DID THE STRAIGHT LEG CONTACTS FIRST, BUT ALSO MADE THEM THE LOW — THE DOWN.

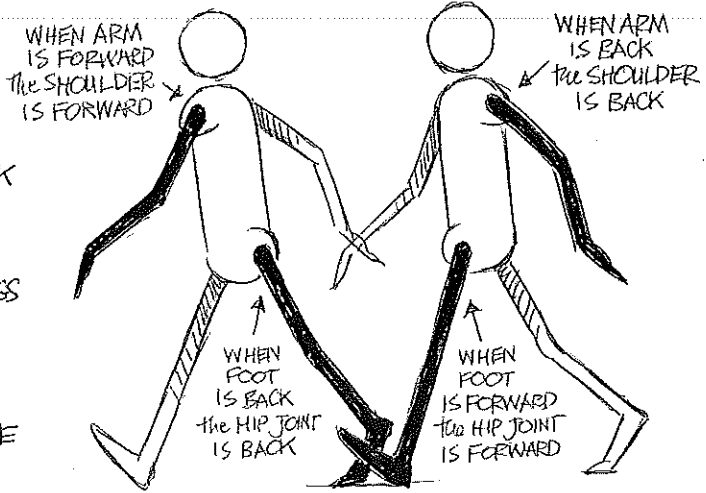THIS IS ON ONES -
TAKING ONE STEP
OF A WALK ON 12's

#13 DOWN   #1 DOWN

CONTACT DOWN	UP	PASS POS DOWN	UP	CONTACT DOWN
1	4	7	10	13

2 3   5 6   8 9   11 12
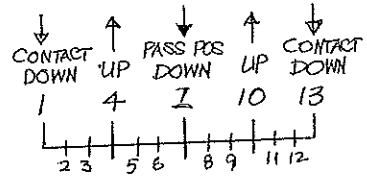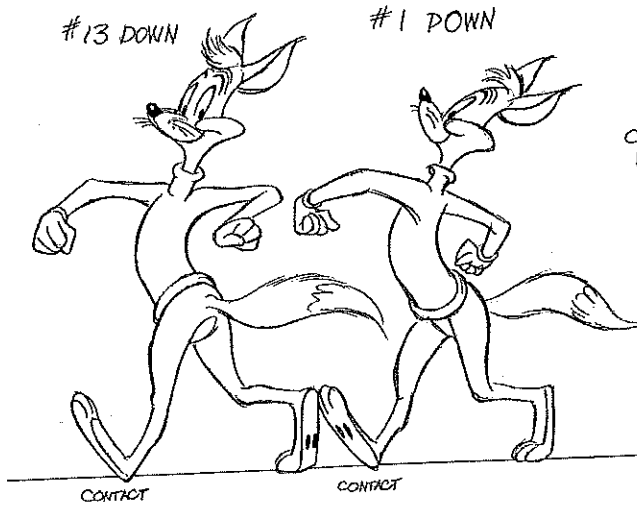
THE IN BETWEENS ARE ON
THIRDS — UNFORTUNATELY.

CONTACT   CONTACT

#13 DOWN   PASS POS. #7 DOWN   #1 DOWN

CONTACT

CONTACT

13 DOWN   #10 UP   7 DOWN   #4 UP   1 DOWN

CONTACT   CONTACT

119
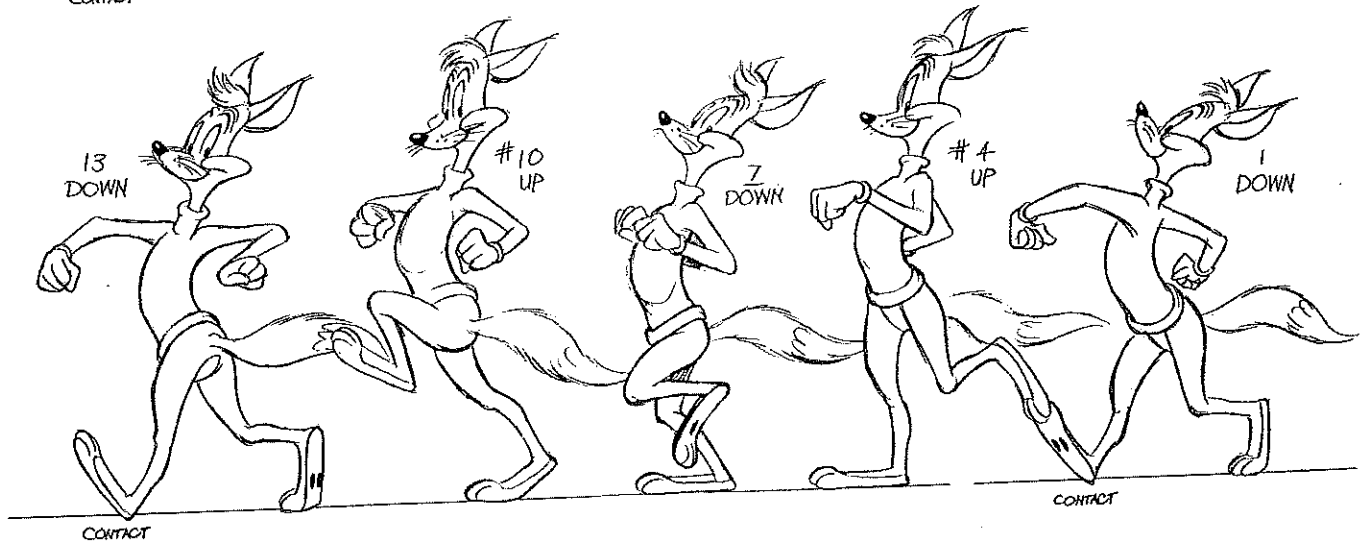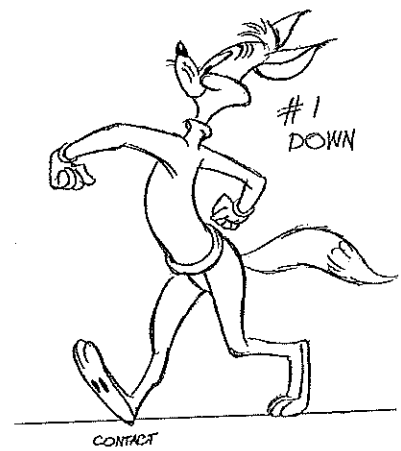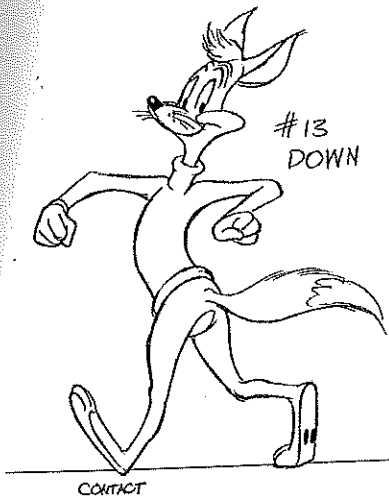
WE'LL START OUT WITH THIS SIMPLE CLICHÉ WALK — NOTHING FANCY YET.

THE ARMS NORMALLY WILL MOVE OPPOSITE TO THE LEGS — BUT SIMPLY BY HAVING THE SHOULDERS OPPOSING THE LEGS WILL GIVE IT MORE LIFE

WHEN ARM IS FORWARD the SHOULDER IS FORWARD

WHEN ARM IS BACK the SHOULDER IS BACK

WHEN FOOT IS BACK the HIP JOINT IS BACK

WHEN FOOT IS FORWARD the HIP JOINT IS FORWARD

FRONT VIEW PULLING IT APART FOR CLARITY

NOW LET'S **TILT THE SHOULDERS** FOR SOME VITALITY —

WE'RE TAKING OUR BASIC PLAN NOW AND ADDING IN THINGS TO BUILD ON THE SYSTEM.

PASS POS.

HIP and SHOULDER LINE OPPOSE EACH OTHER

ON THE PASSING POSITION HIPS AND SHOULDERS ARE MORE OR LESS STRAIGHT
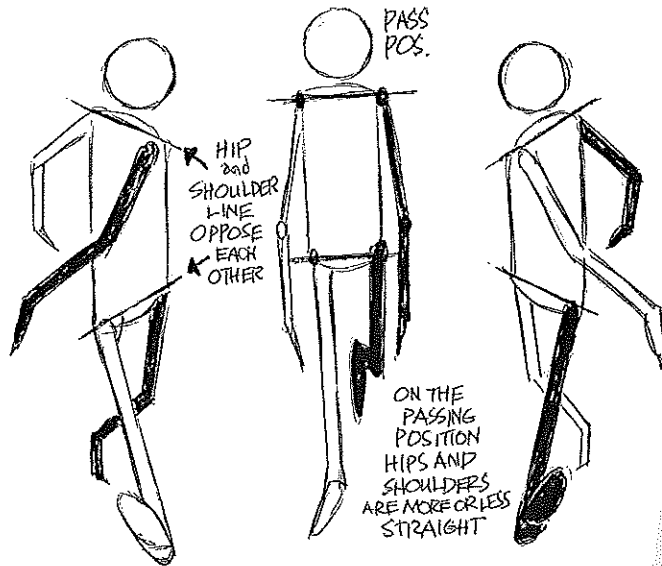
NOW LET'S DO SOMETHING WITH THE HEAD TO MAKE THIS SIMPLE FORMULA WALK MORE INTERESTING —

LET'S **TILT** THE HEAD:

PASS POS.
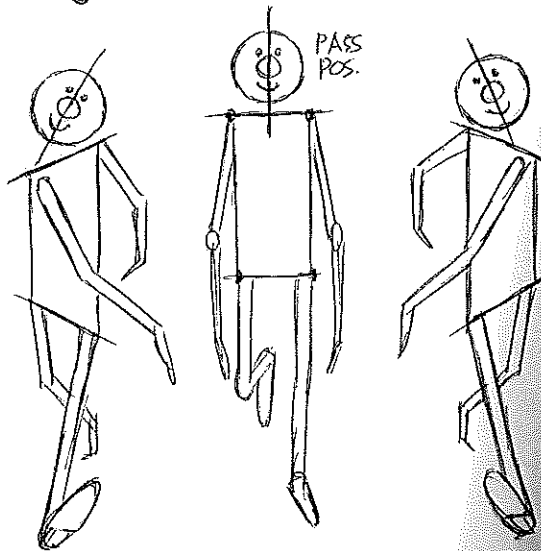
HOW ABOUT THIS?
LET'S DELAY
the TILT OF the HEAD
ON the
PASSING POSITION

PASS POS.

PASS POS.
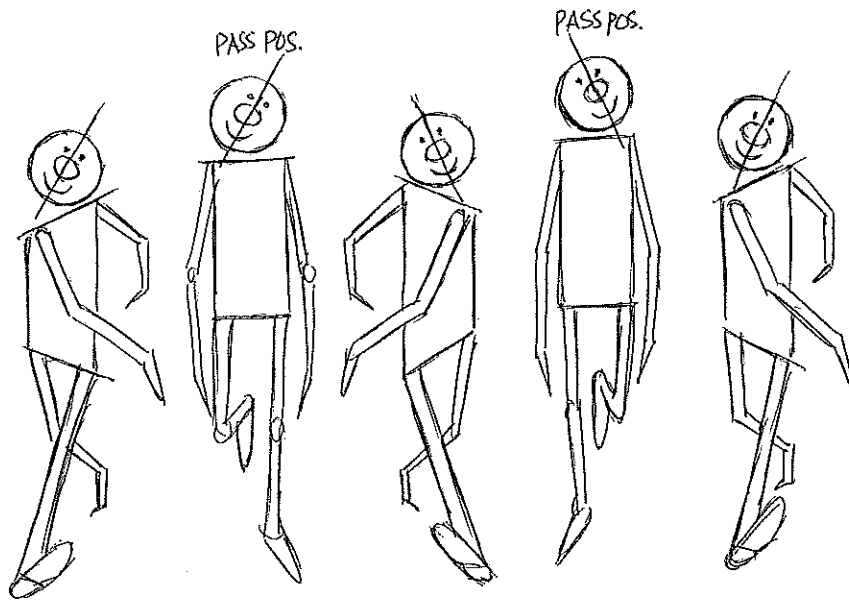
LET'S DO
SOMETHING ELSE
WITH THE HEAD —
STICK The HEAD OUT
ON The
PASSING POSITION

(GIVES A SLIGHT
PIGEON EFFECT)

PASS POS.
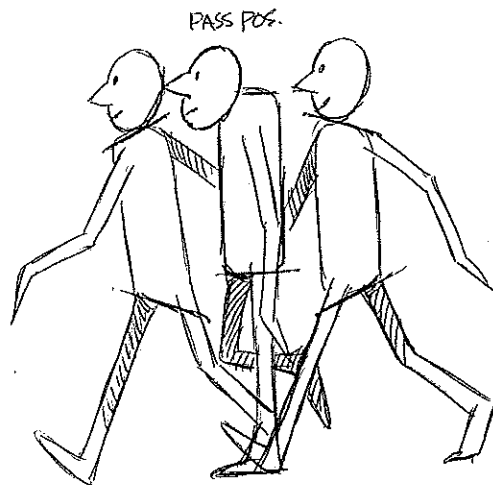
ONE SMALL
DETAIL THAT'S
DIFFERENT
WILL GIVE A
WHOLE DIFFERENT
FEELING TO
the FORMULA

OR

THE HEAD
GOES FORWARD
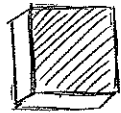AND CONTINUES
AT THE
END OF THE STEP

HEAD TILTS
AS IT
GOES OUT

PASS POS

BACK VIEW

121
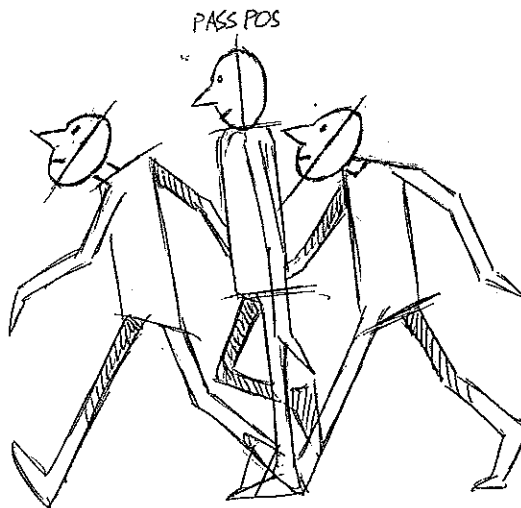
ANY SMALL DETAIL ALTERS A WALK-
LIKE MOVING THE HEAD UP OR DOWN-
OR TILTING IT FROM SIDE TO SIDE-

OR MOVING IT
BACK AND FORTH-

OR A COMBINATION
OF ANY OF THIS.

CAN THINK
OF IT
AS A CUBE.
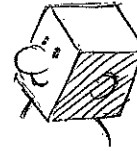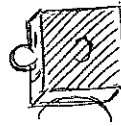
THE EGOTIST'S WOBBLE HEAD-

YOU SEE THIS A LOT WITH
POLITICIANS, ACTORS OR PEOPLE
WHO IMAGINE
THE CAMERA IS ON THEM
ALL THE TIME.

SOME COMEDIANS DO IT
WHEN THEY GET A BIG
AUDIENCE RESPONSE.

IN HOLLYWOOD
I'VE EVEN SEEN
THE MAILMAN
DOING IT.

UP   PASS POS
DOWN

LEAN
BACK
A BIT
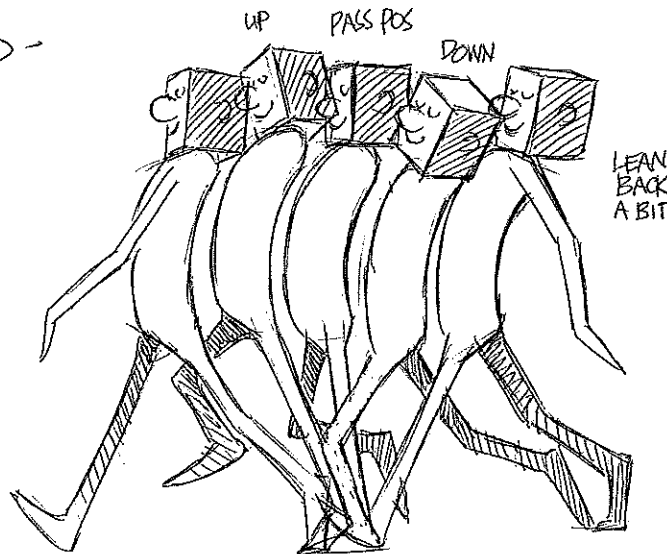
FLOATING ALONG
IN LOVE WITH ITSELF
'ITS WONDERFUL-
TO BE WONDERFUL'
WILL WORK NICELY
WITH
NOT MUCH UP and DOWN

SLIGHT UP   SLIGHT
DOWN
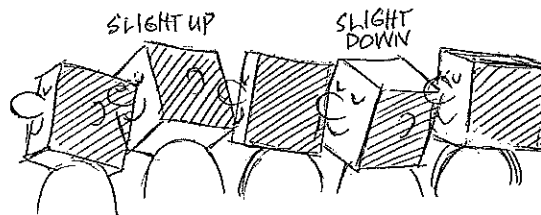
WHEN I WAS A KID
I ALWAYS WONDERED
WHY ANIMATORS DREW
HEADS LIKE THIS-
WITH CONSTRUCTION
LINES ON THEM.
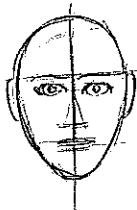
NOW I KNOW
WHY-
THEY'RE TURNING
MASSES
ALL THE TIME.

(BUT) A CAUTIONARY NOTE FROM KEN HARRIS:

FOR WALKS, DON'T MAKE CYCLES OF BODY AND HEAD ACTION
IN CIRCLES OR FIGURE 8's —

IF YOU DO IT WILL LOOK LIKE A BIRD OR PIGEON WALK (UNLESS YOU WANT THAT.)

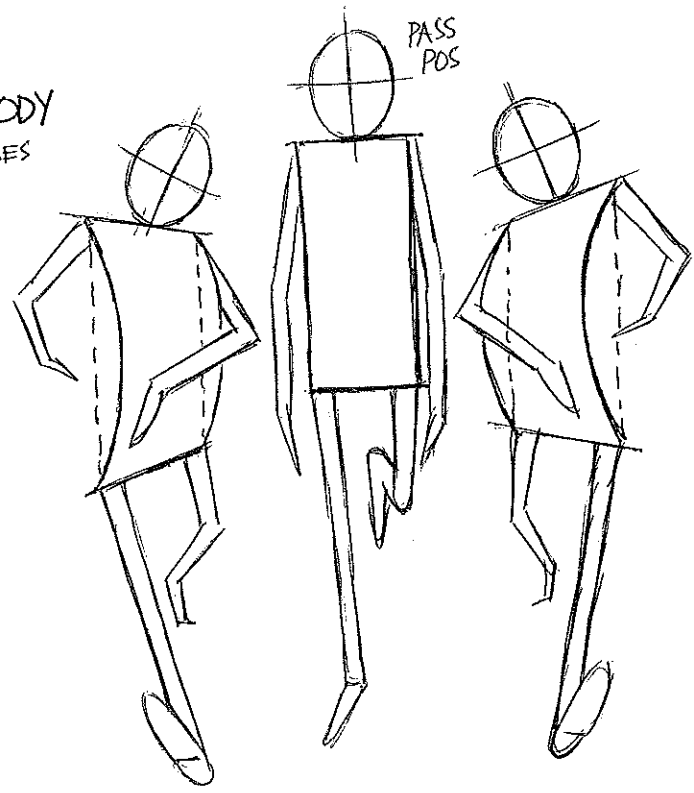DON'T   DON'T   (DO)
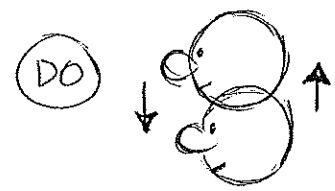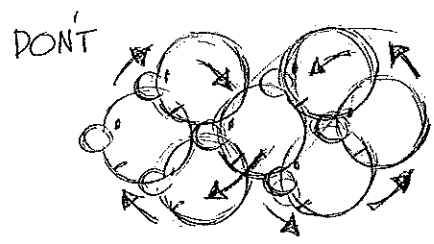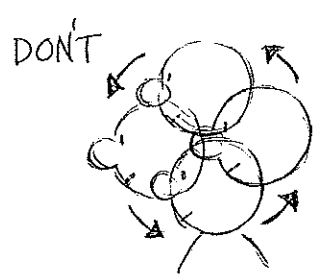
FOR SAFETY KEEP THE MASS
MOSTLY STRAIGHT UP AND DOWN.

BUT BEARING THIS IN MIND WE SHOULD STILL BE BRAVE AND TRY THINGS...

BUILDING ON OUR BASIC PLAN, WE'VE ALREADY ADDED IN MORE ACTION
IN THE HEAD, SHOULDERS, ARMS, HIPS AND FEET:

NOW LET'S
BEND THE BODY
ON THE EXTREMES

PASS
POS

KEEP STRAIGHT
ON THE
PASSING POSITION

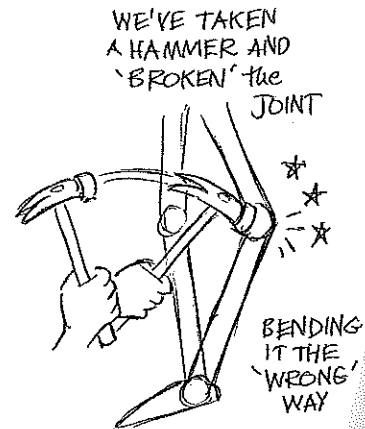AND NOW WE'RE GOING TO DO THINGS TO THE LEGS and ARMS THAT LOOKS WEIRD —

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WE'RE GOING TO 'BREAK' THE LEG.
WE'RE GOING TO BEND IT WHETHER IT WOULD BEND THAT WAY OR NOT.
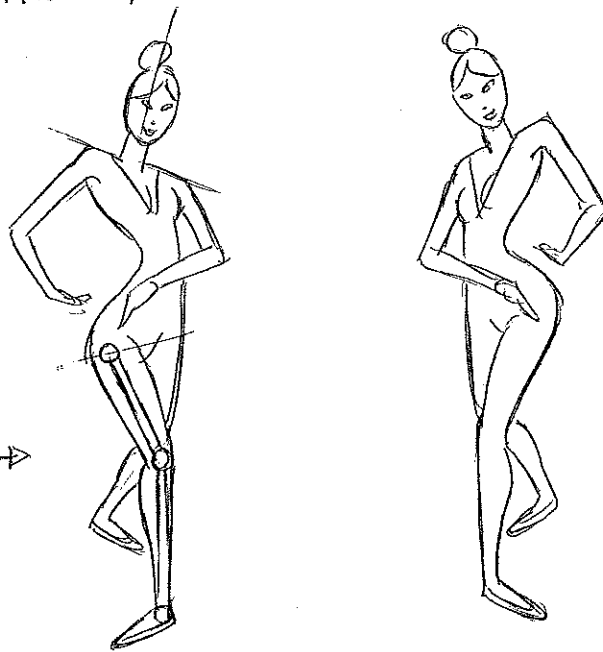
OF COURSE THE
BONES REMAIN
THE SAME LENGTH.
THE ONLY TIME
IT CHANGES IS
WHEN ITS
FORESHORTENED
IN
PERSPECTIVE
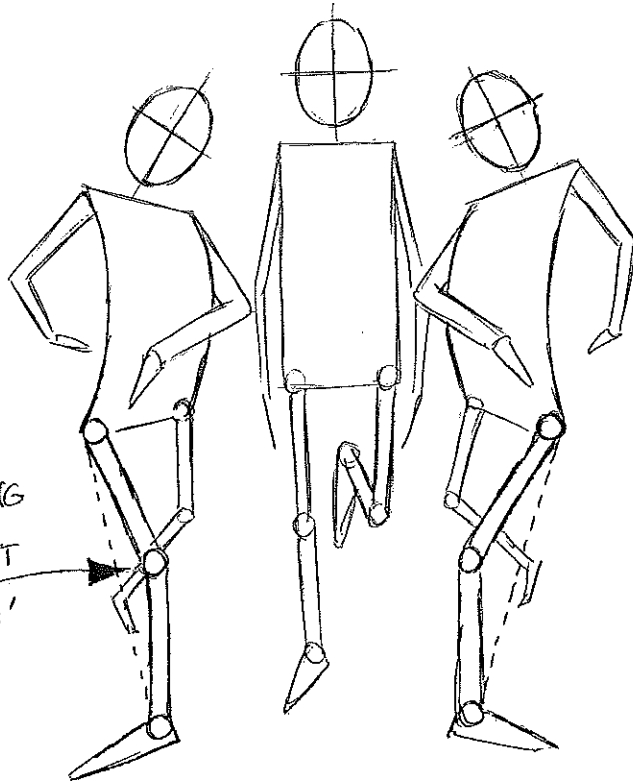
WE'RE DOING
WHAT
ART BABBITT
CALLS
'BREAKING'
THE JOINT

WE'VE TAKEN
A HAMMER AND
'BROKEN' THE
JOINT

BENDING
IT THE
'WRONG'
WAY

IT LOOKS WEIRD ENOUGH, BUT IF WE DRAW A BALLET DANCER ON TOP OF IT, IT LOOKS
JUST FINE.

WE'RE
GOING
TO HAVE →
A LOT
MORE
OF THIS
LATER

SO WE CAN
TAKE INCREDIBLE
LIBERTIES WITH
THE UNDERLYING
STRUCTURE
(IF WE WANT TO)
AND IT WILL BE
PERFECTLY
ACCEPTABLE
- ESPECIALLY
IN MOTION!

WHY ARE WE DOING THIS?

EVERYTHING WE'RE DOING IS TO GET MORE CHANGE, MORE ACTION WITHIN THE ACTION.

TO LIMBER THINGS UP — GET MORE LIFE INTO IT.

Grim Natwick said:
'We used to bet ten dollars against ten cents that you could take any character and walk it across the room and get a laugh out of it.

'We used to have about twenty-four different walks. We'd have a certain action on the body, a certain motion on the head, a certain kind of patter walk, a big step or the "Goofy" walk that Art Babbitt developed.

'While the opposite arm naturally moves with the opposite leg, we'd break the rules eight or ten different ways to make the walk interesting.'

WE'RE TAKING OUR BASIC PLAN NOW AND ADDING IN THINGS TO BUILD UPON THE SYSTEM.

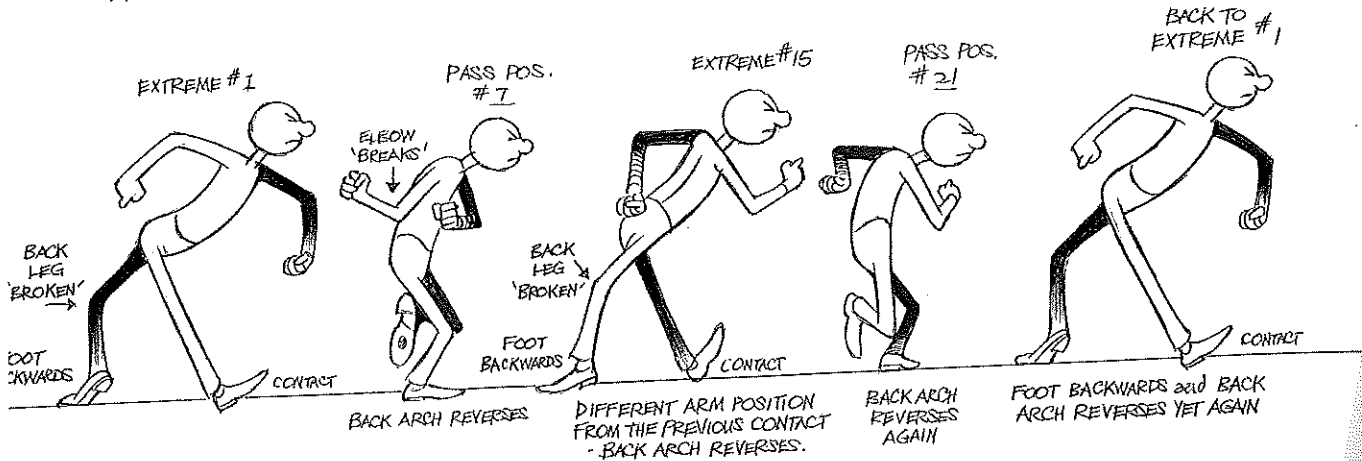SAY WE HAVE A KIND OF ANGRY WALK — WE'D NORMALLY DO THIS:

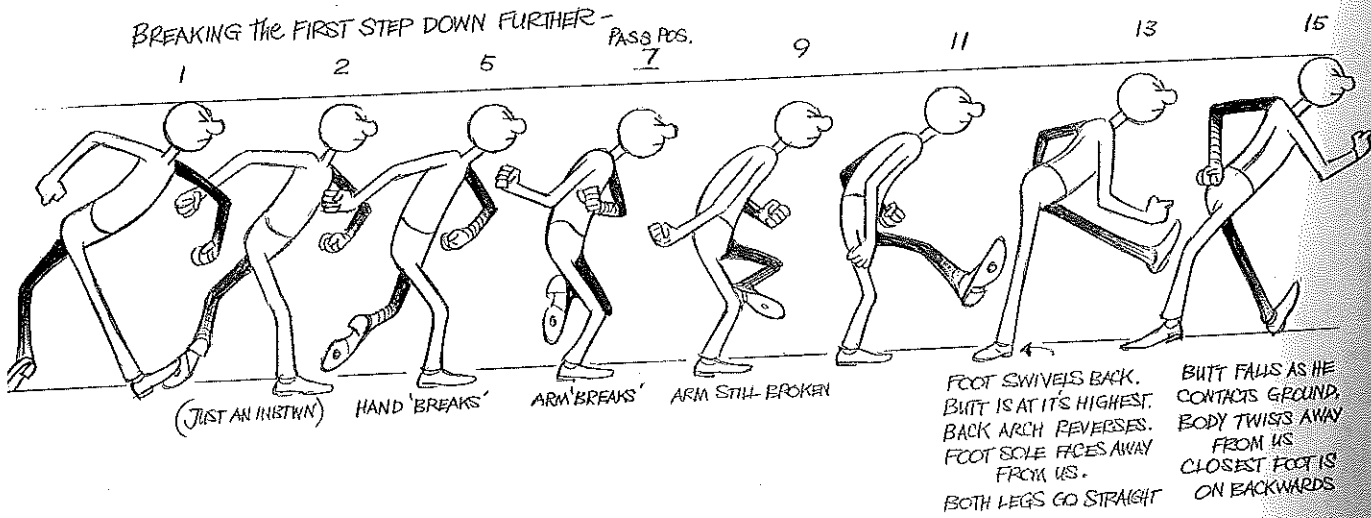UP ON THE PASS POS
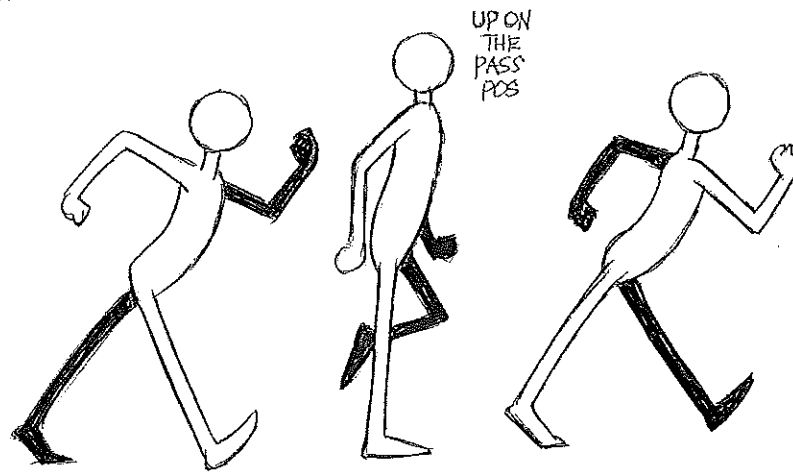
BUT LOOK WHAT HAPPENS WHEN WE DO JUST 2 THINGS —

PUT HIM DOWN ON THE PASSING POSITION MAKING HIS BACK CONVEX — AND DO THIS WITH THE ARM 'BREAKING' THE ELBOW.
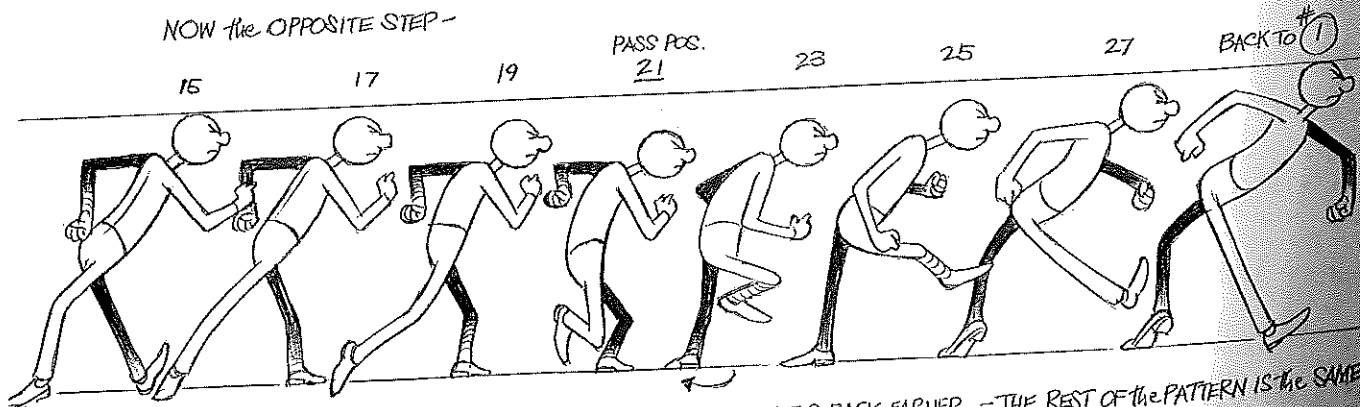
ELBOW LEADS

WILL SWING FASTER THRO' HERE

125
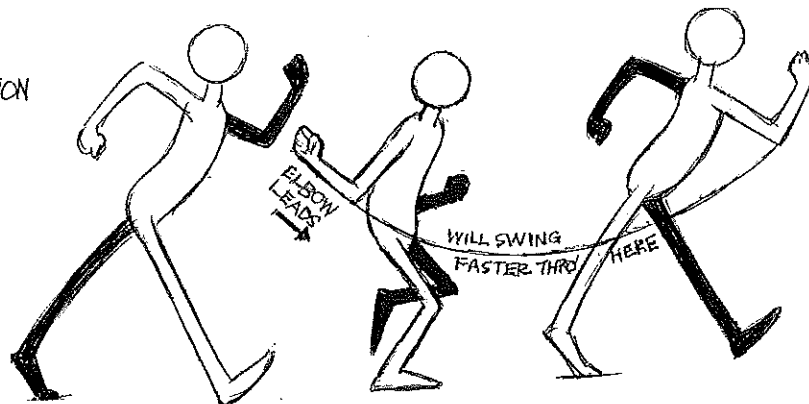
LET'S TAKE THIS ANGRY WALK MUCH FURTHER-
THIS IS THE KIND OF THING ART BABBITT DID ALL HIS LIFE - MAKING IMPOSSIBLE MOVES LOOK
CONVINCING and BELIEVABLE. HE'D SAY, "BE A LITTLE BIT TRUTHFUL"...
SO IT DOESN'T JUST LOOK LIKE ONE STEP REPEATING. WE SLIGHTLY CHANGE the SILHOUETTE
ON the 2nd CONTACT (#15) SO THE COUNTER ARM POSITIONS ARE DIFFERENT FROM CONTACT #1.
ON the CONTACTS the BACK LEG IS 'BROKEN' AND the FOOT SWIVELLED BACKWARDS.
HE'S ON TWOS - EACH STEP TAKING 14 FRAMES.

EXTREME #1   PASS POS. #7   EXTREME #15   PASS POS. #21   BACK TO EXTREME #1

ELBOW 'BREAKS'

BACK LEG 'BROKEN'

BACK LEG 'BROKEN'

FOOT BACKWARDS

FOOT BACKWARDS

CONTACT   CONTACT   CONTACT

BACK ARCH REVERSES   DIFFERENT ARM POSITION FROM THE PREVIOUS CONTACT - BACK ARCH REVERSES.   BACK ARCH REVERSES AGAIN   FOOT BACKWARDS and BACK ARCH REVERSES YET AGAIN

BREAKING the FIRST STEP DOWN FURTHER-

| 1 | 2 | 5 | PASS POS. 7 | 9 | 11 | 13 | 15 |

(JUST AN INBTWN)   HAND 'BREAKS'   ARM 'BREAKS'   ARM STILL BROKEN

FOOT SWIVELS BACK. BUTT IS AT IT'S HIGHEST. BACK ARCH REVERSES. FOOT SOLE FACES AWAY FROM US. BOTH LEGS GO STRAIGHT

BUTT FALLS AS HE CONTACTS GROUND. BODY TWISTS AWAY FROM US CLOSEST FOOT IS ON BACKWARDS
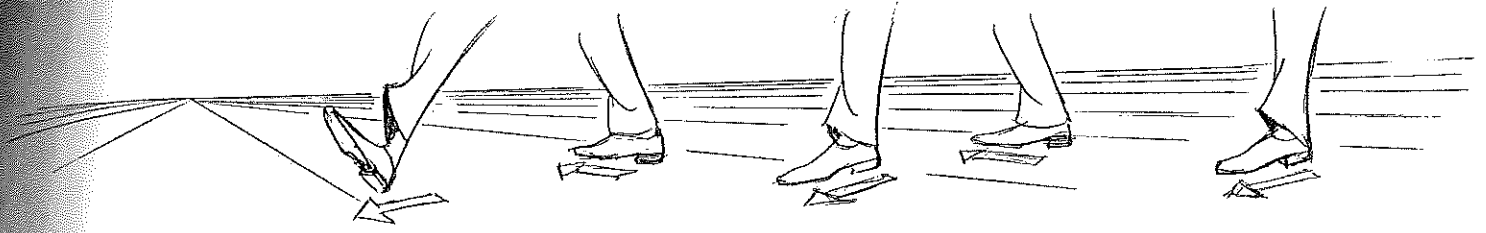
NOW the OPPOSITE STEP-

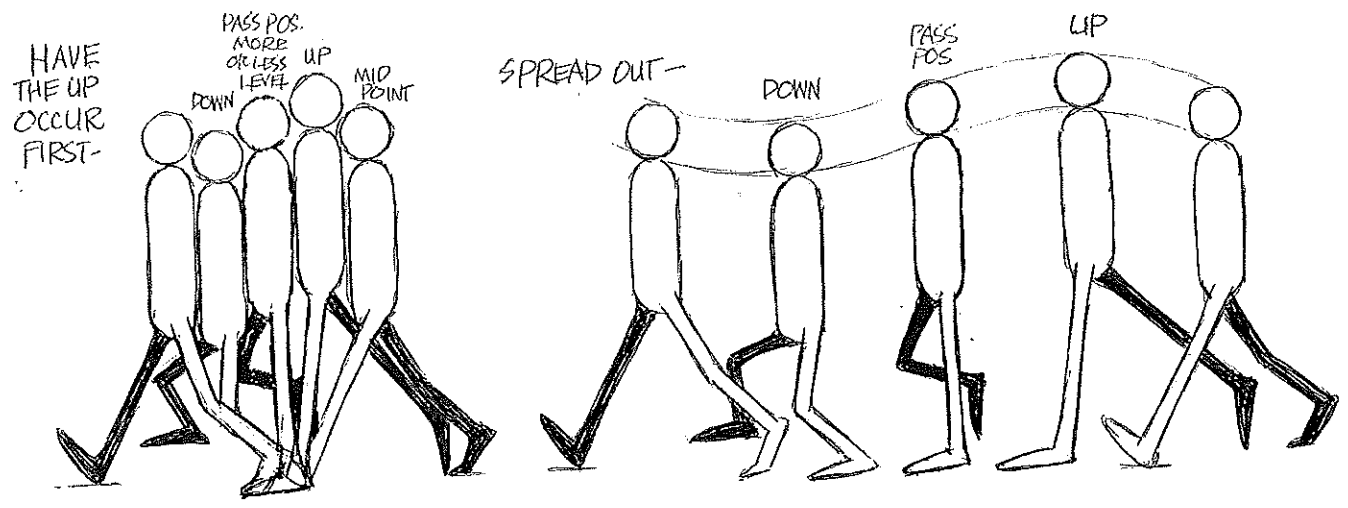| 15 | 17 | 19 | PASS POS. 21 | 23 | 25 | 27 | BACK TO #1 |

The ARM SWING DOESN'T 'BREAK'- AND the FOOT SWIVELS BACK EARLIER -THE REST OF the PATTERN IS the SAME
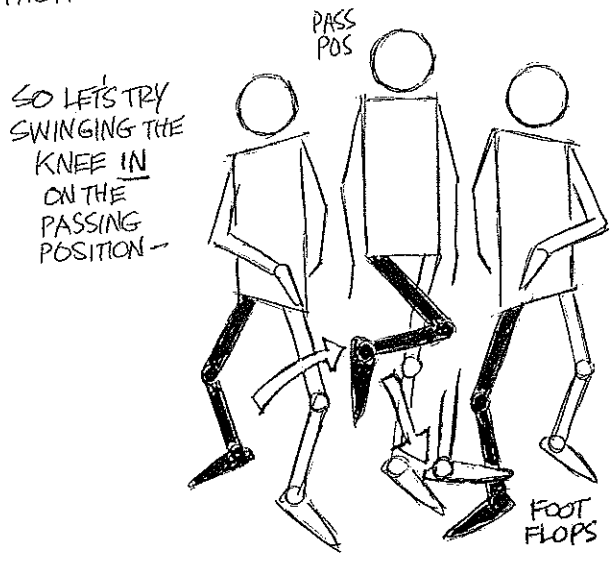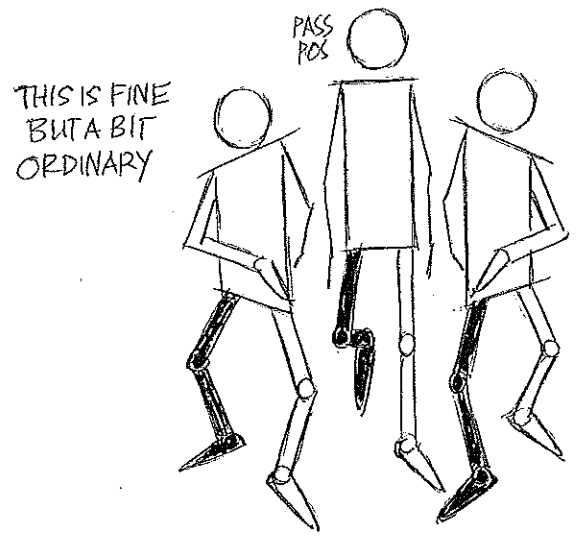
INCIDENTALLY, ON A PROFILE WALK IT HELPS TO HAVE ONE FOOT
A LITTLE IN FRONT - AND ANGLED SIDEWAYS A BIT. (I'VE BEEN KEEPING THINGS
VERY DIAGRAMMATIC TILL NOW)

LET'S KEEP TAKING THINGS OUT OF THE ORDINARY -
WHY NOT A SIMPLE REVERSAL OF THE UP AND DOWN OF A NORMAL WALK?

HAVE
THE UP
OCCUR
FIRST-

PASS POS.
MORE
OR LESS
LEVEL

DOWN

UP

MID
POINT

SPREAD OUT -

DOWN

PASS
POS

UP

STILL KEEPING TO OUR 3 MAIN POSITIONS -

THIS IS FINE
BUT A BIT
ORDINARY

PASS
POS

SO LET'S TRY
SWINGING THE
KNEE IN
ON THE
PASSING
POSITION -

PASS
POS

FOOT
FLOPS

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DIGGING DEEPER INTO WALKS

HERE'S A KIND OF STRUT.

LET'S BEND THE BODIES OUTWARDS ON THE EXTREMES - HEADS, SHOULDERS, HIPS TILTED.
PUT THE PASSING POSITION DOWN and SWING THE LEG INWARDS and 'BREAK' THE SUPPORT
LEG - KIND OF KNOCK-KNEED -   THIS'LL GIVE AN INTERESTING RESULT.

PASS POS

BREAK
THE
SUPPORT
LEG
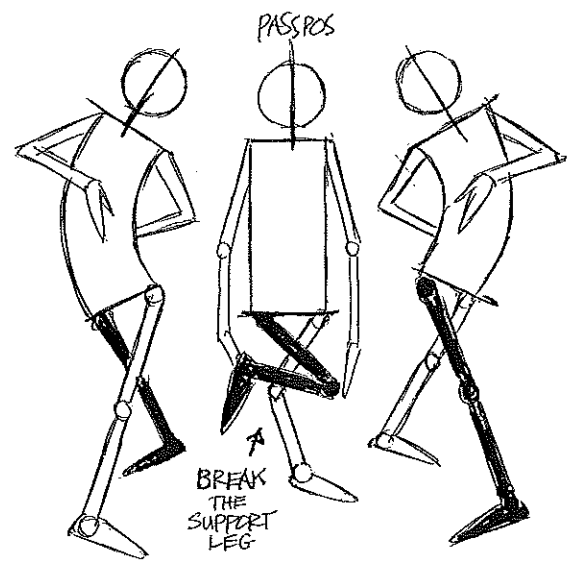
NOW LET'S TAKE THE SAME EXTREMES AND PUT THE PASSING POSITION UP AND WE'LL
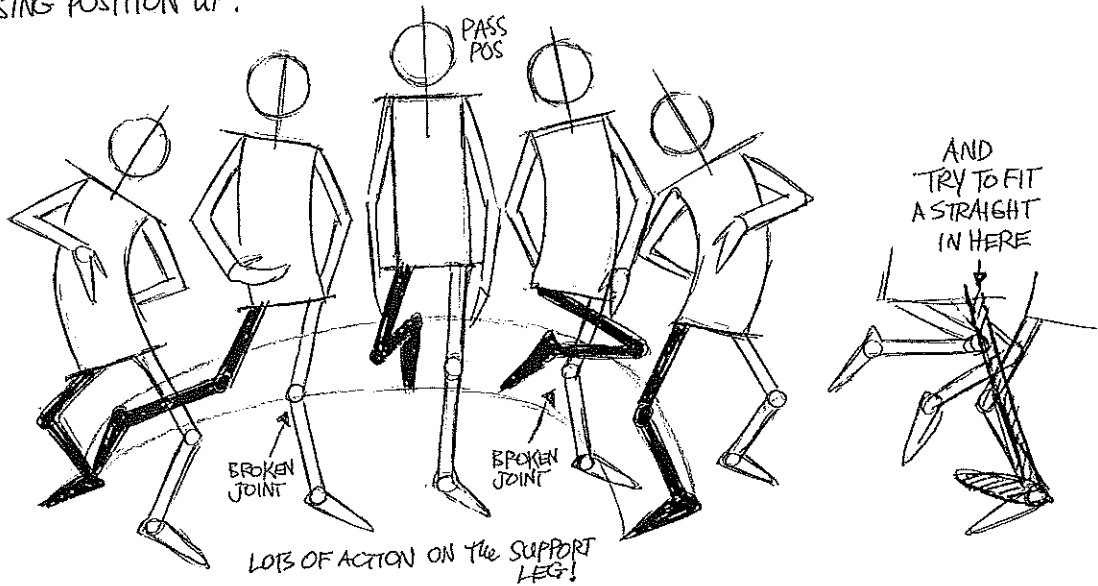STRAIGHTEN THE SUPPORT LEG TO LIFT HIM UP AND SWING THE PASSING LEG INWARDS
AS PREVIOUSLY.

BUT MAKE THE NEXT BREAKDOWN DOWN (AS NORMAL) WITH THE LEG ANGLING OUTWARDS
and THE OTHER BREAKDOWN JUST COMING FORWARDS (THE BODY JUST INBETWEEN)
— EXCEPT FOR THE LEG

DOWN   PASS POS   1 BTWN
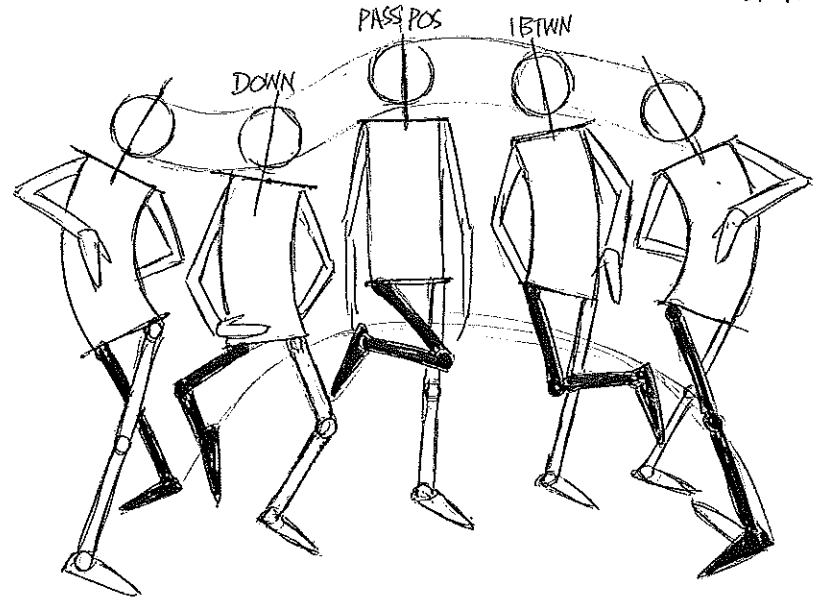
GIVES
A VERY
DIFFERENT
RESULT

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WE CAN GO ON FOREVER THIS WAY, ALTERING BITS AND SWITCHING THINGS AROUND
ON OUR BASIC 3 DRAWING PLAN.

HOW ABOUT THIS? KEEP the SAME 2 STARTING EXTREMES BUT USE THE BENT LEGS POSITION.
PUT the PASSING POSITION UP.

PASS POS

AND TRY TO FIT A STRAIGHT IN HERE

BROKEN JOINT

BROKEN JOINT

LOTS OF ACTION ON THE SUPPORT LEG!

HOW ABOUT ONE LIKE THIS?
START WITH KNOCK KNEES ·· (BROKEN' JOINTED LEGS)

PASS POS UP

The DOWN

FLOP
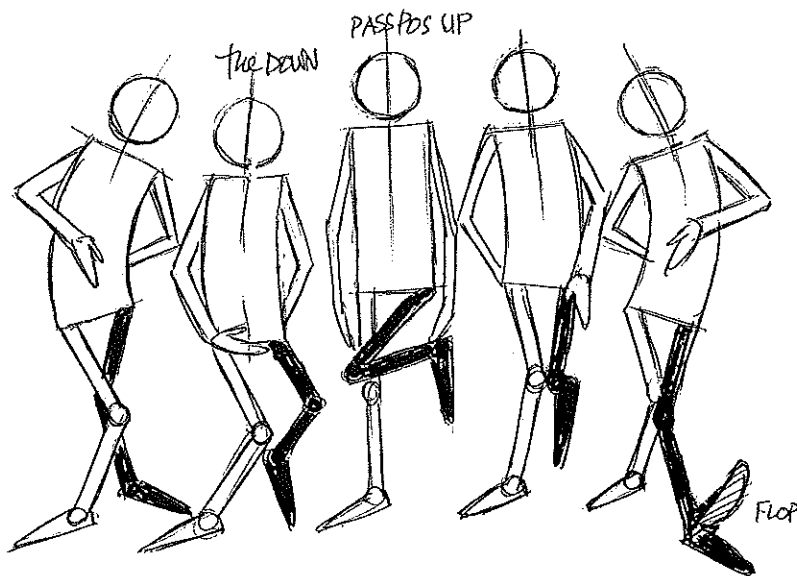
WHAT WE'RE TRYING TO PUT OVER HERE IS A WAY OF THINKING ABOUT IT-
A SIMPLE GRID ON WHICH TO BUILD QUITE NORMAL WALKS — OR WILDLY
ECCENTRIC ONES — AND ALL THAT LIES BETWEEN.

HERE'S A KIND OF FEMININE WALK ON THE SAME BASIC FIGURE —
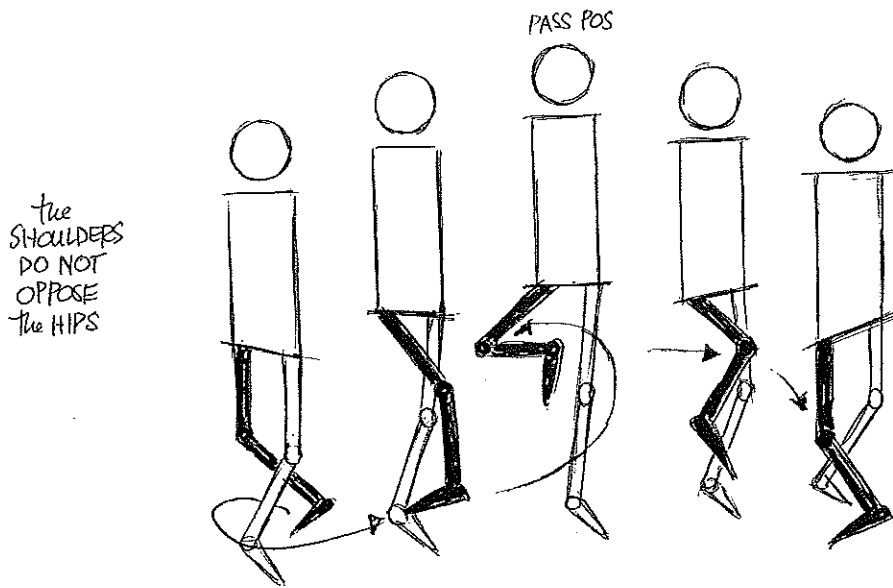
PASS POS

the SHOULDERS DO NOT OPPOSE the HIPS

THE VARIATIONS ARE ENDLESS...

TILT SHOULDERS AND HEAD ON PASS POS.
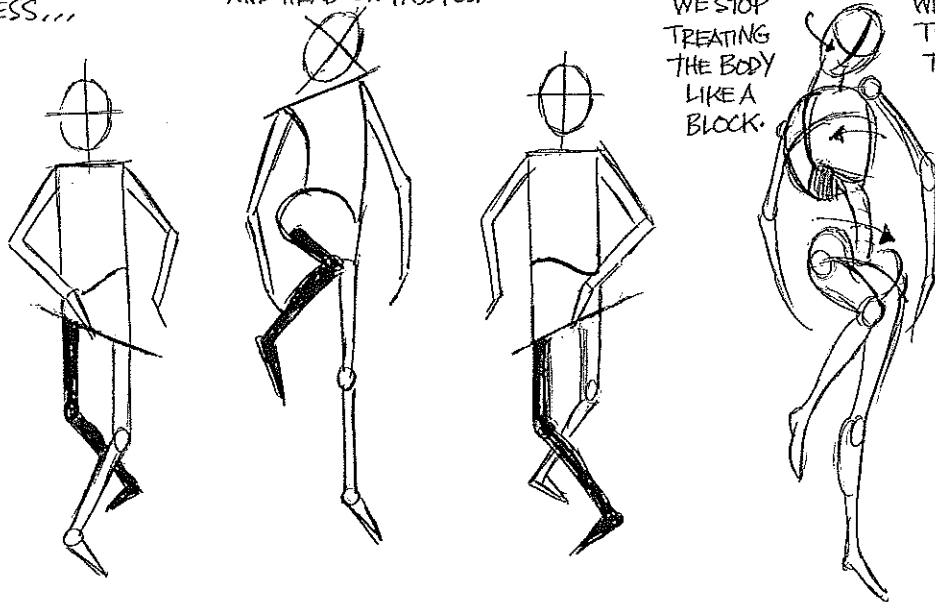
AND IMAGINE WHAT WE CAN GET UP TO WHEN WE STOP TREATING THE BODY LIKE A BLOCK.

WE START TWISTING THINGS —

EVEN IF THE ACTIONS ARE IMPOSSIBLE (BROKEN JOINTS, ETC.) TO DO — ITS A GOOD IDEA TO ACT OUT ALL THE BUSINESS TO SEE WHETHER IT WILL FIT INTO THE TIME ALLOTTED. DISCARD ALL MODESTY AND ACT IT OUT.
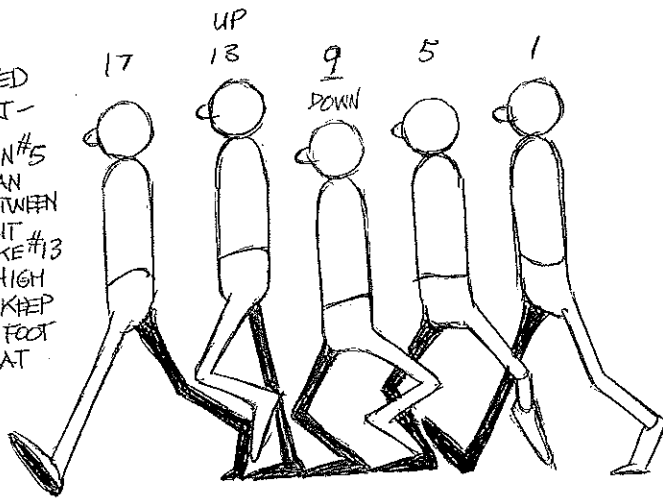
WHEN I ASKED MILT KAHL ABOUT A MARVELLOUS FEMALE WALK HE'D ANIMATED, HE SAID "I CLOSED THE DOOR, BUT IF YOU'D SEEN ME DOING IT YOU'D HAVE WANTED TO KISS ME."

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LETS TRY
THIS ONE –

17   9   1

MAKE
THE
PASSING
POSITION
DOWN
BUT ALTER
THE LEFT LEG
LIKE THIS –
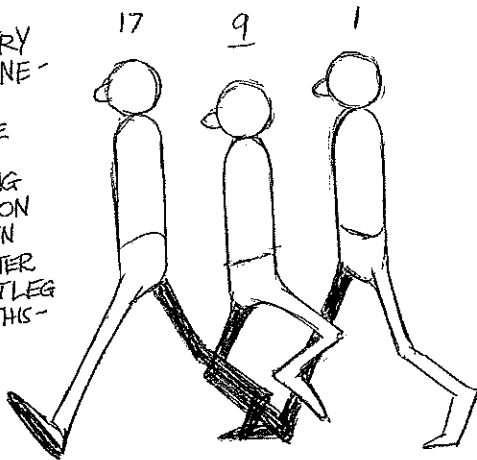
PULLED
APART –

ADD IN #5
AS AN
IN BETWEEN
BUT
MAKE #13
THE HIGH
AND KEEP
ITS FOOT
FLAT

UP
17   13   9   5   1
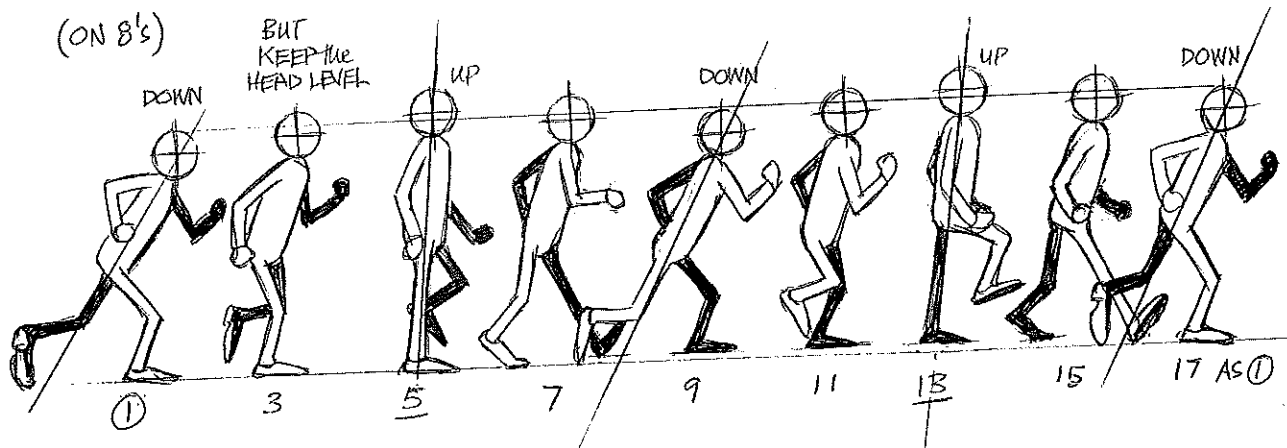   DOWN

WE'D GET
SOMETHING
LIKE THIS –

UP
17 16 15   13   11   9   7   5   3   1
                    DOWN

#16 →
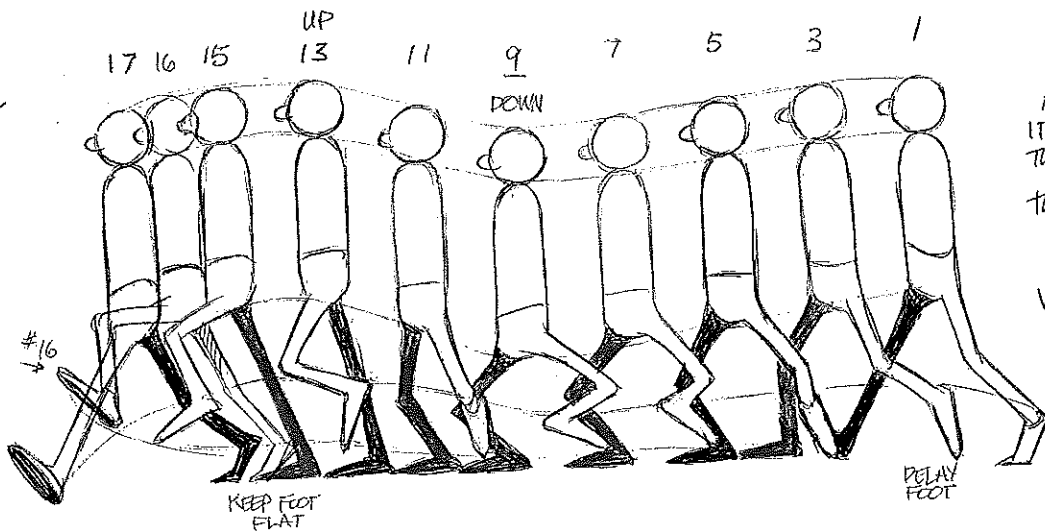
AGAIN,
ITS ALL IN
THE TIMING
AND IN
THE SPACING

AND
THE
VARIATIONS
ARE
ENDLESS.

KEEP FOOT
FLAT

DELAY
FOOT

LETS SIMPLY CHANGE THE TILT OF THE BODY ON THE PASSING POSITION –

(ON 8's)

DOWN

BUT
KEEP THE
HEAD LEVEL

UP   DOWN   UP   DOWN
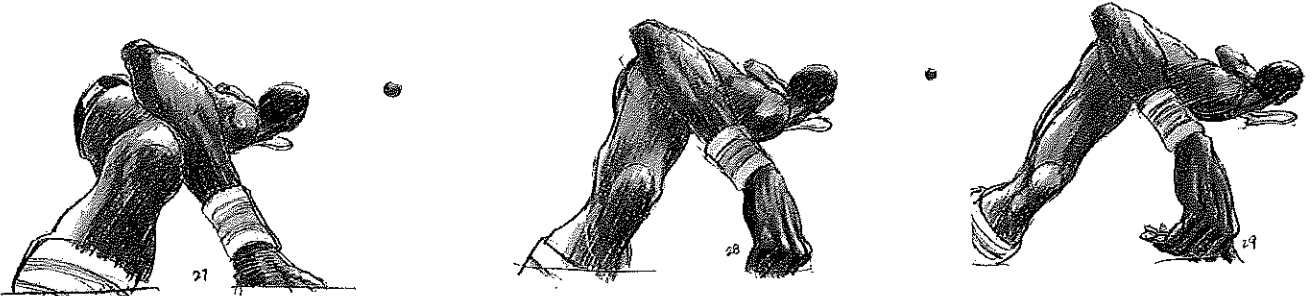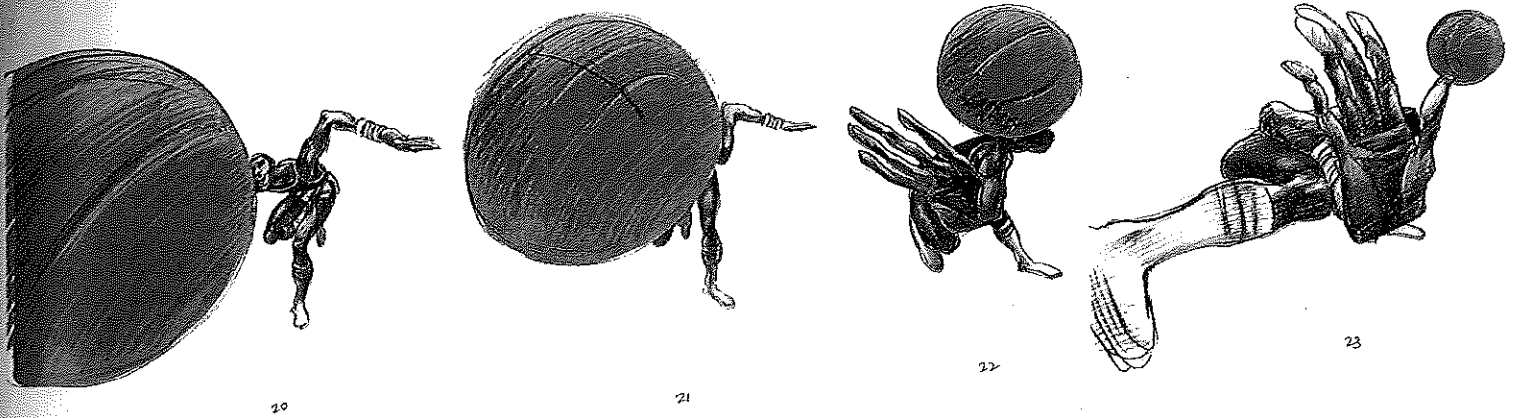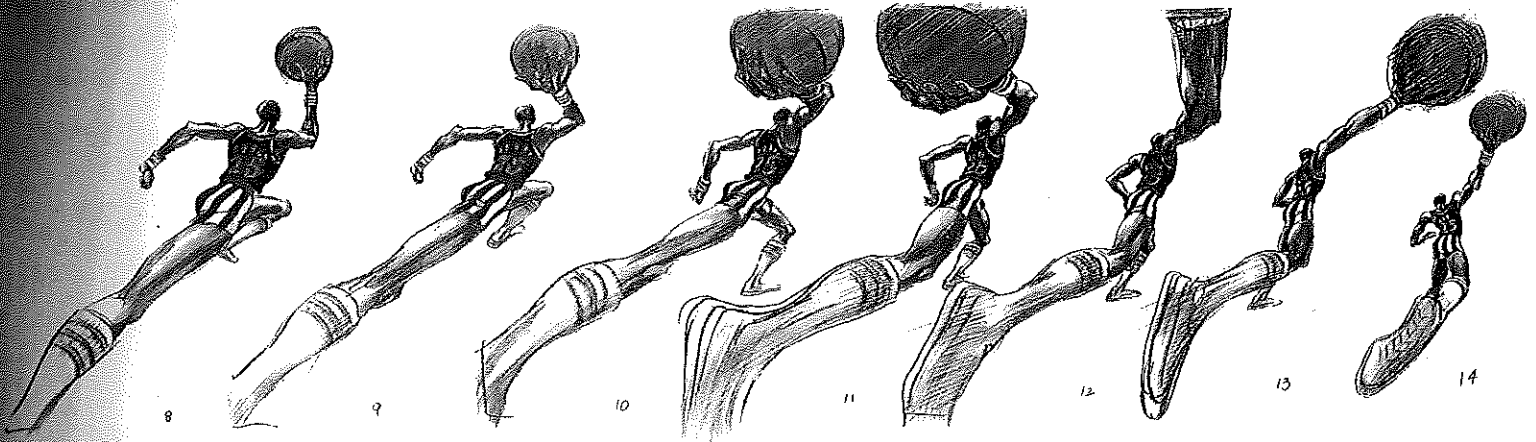
①   3   5   7   9   11   13   15   17 AS ①

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AND WE SHOULDN'T BE AFRAID TO TAKE LIBERTIES AND DISTORT THINGS - ESPECIALLY FOR FAST ACTION.
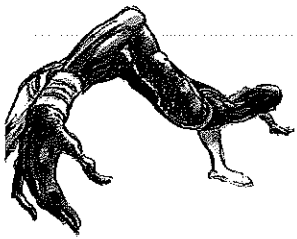(ON ONES)
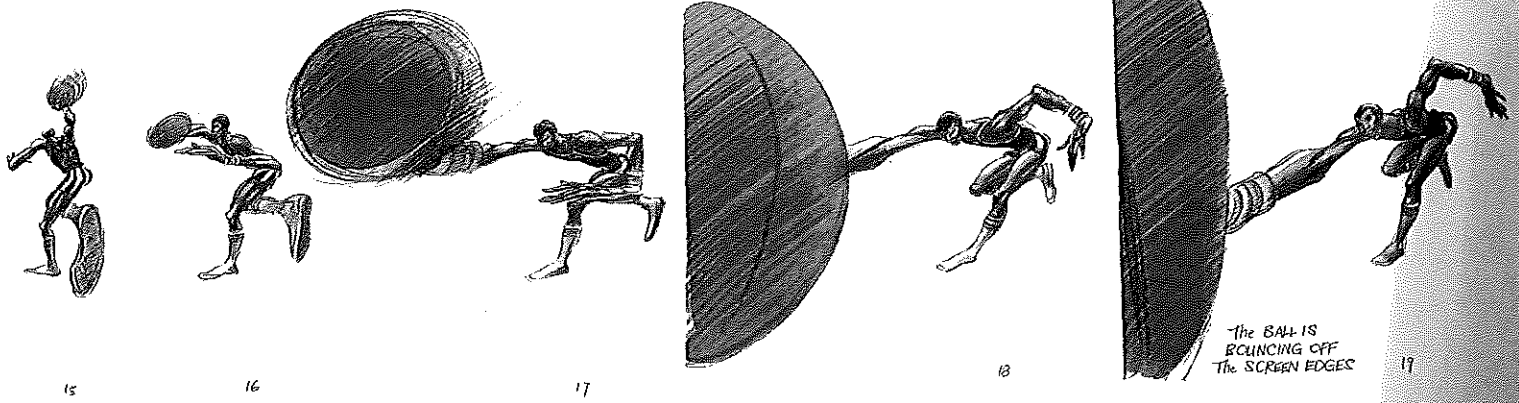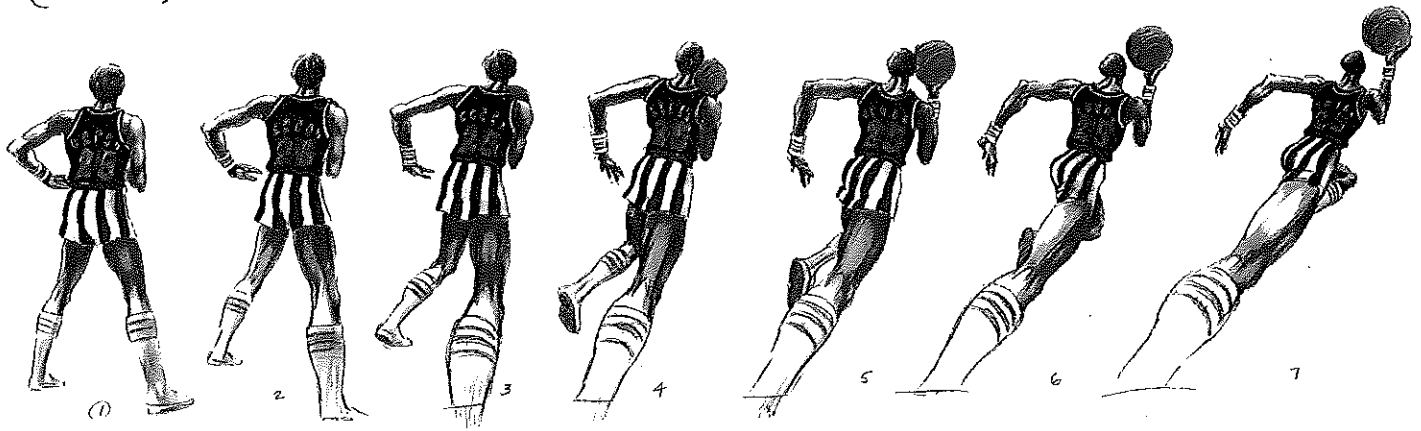
the BALL IS
BOUNCING OFF
The SCREEN EDGES
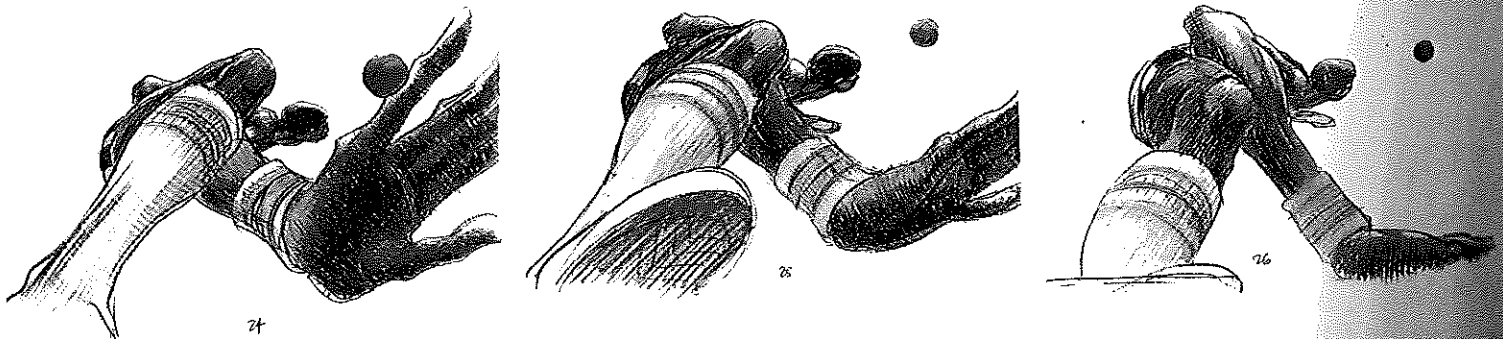
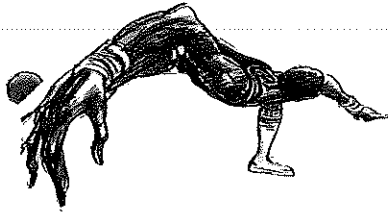I'M INCLUDING THIS BASKETBALL FIGURE I ANIMATED – JUST TO SHOW HOW FAR WE CAN GO (IT WORKED FINE.)
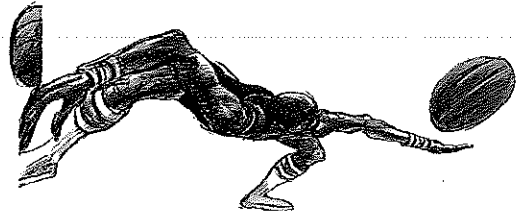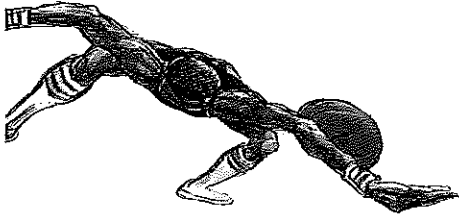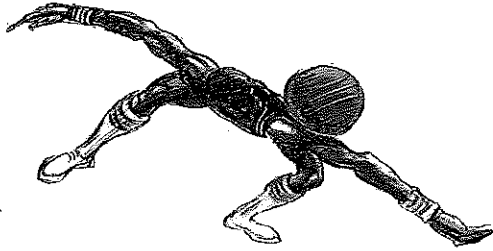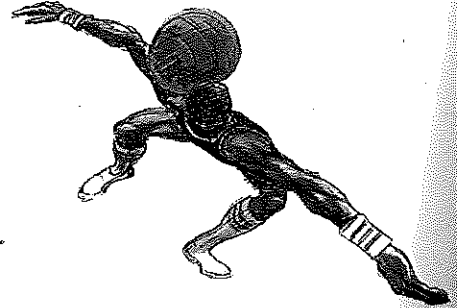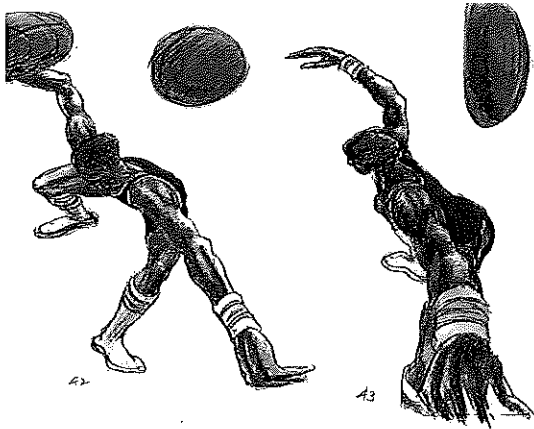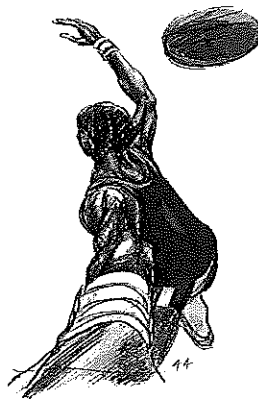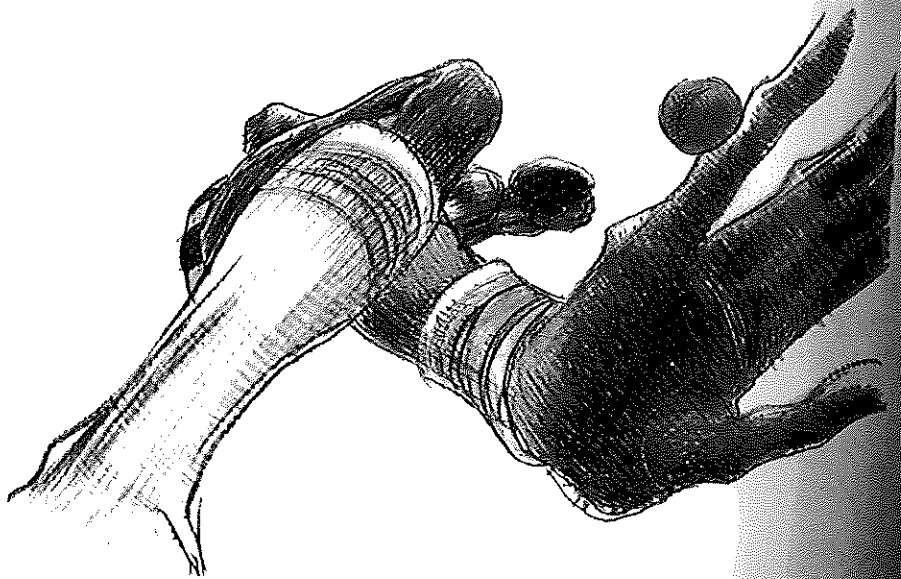
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37

38

39

40

41

42

43

44

45

46

47

CONCLUSION:

WE CAN TAKE GREAT LIBERTIES
WITH FAST ACTIONS — EVEN
WITH REALISTIC FIGURES.

IT'S OBVIOUS THAT FOR REALLY
FAST ACTIONS YOU HAVE TO
   MAKE EVERY DRAWING —
AN ASSISTANT (FOR THIS) MIGHT
BE A HELP SHADING MUSCLES
OR STRIPES BUT NOT MUCH ELSE.
MILT KAHL:
   'IF IT'S FAST ACTION
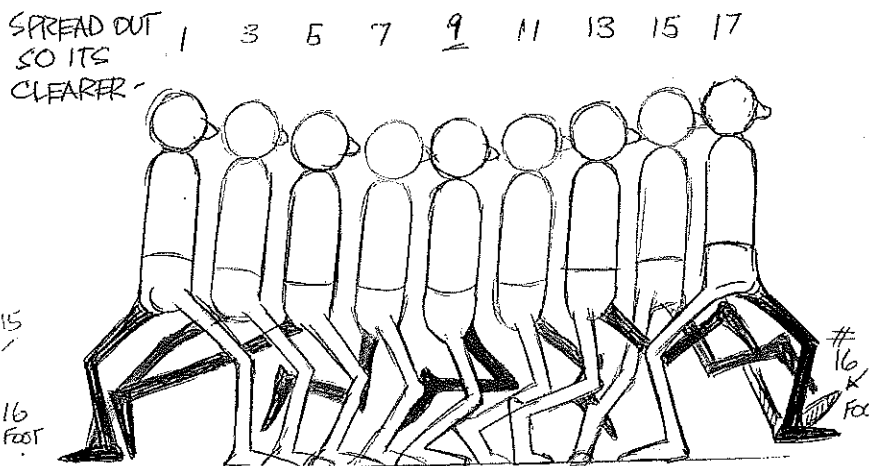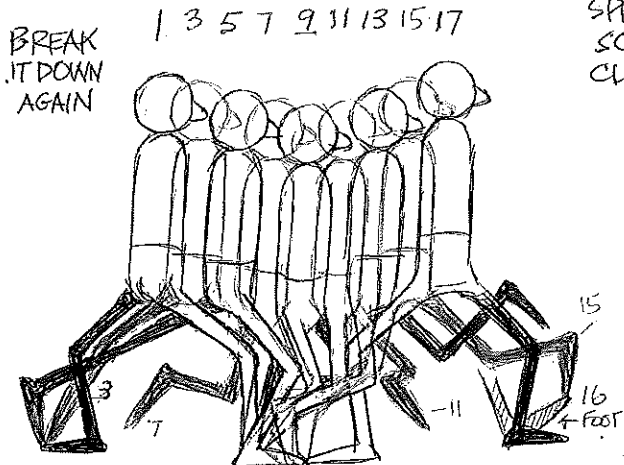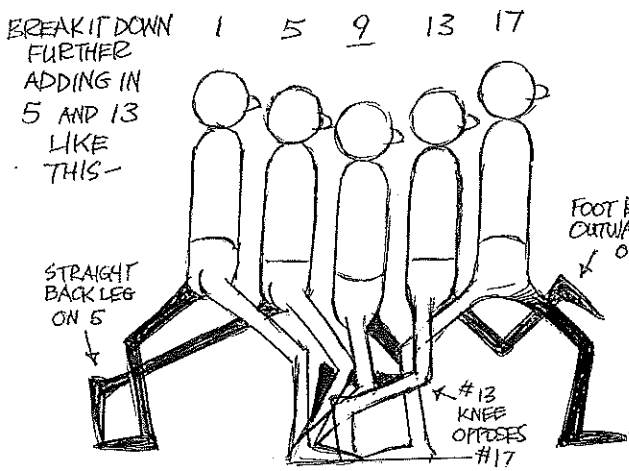I MAKE EVERY DRAWING'

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THERE'S NOTHING LIKE TRYING IT

INNUMERABLE POSSIBILITIES EXIST.

WE'RE NOT COPYING LIFE, WE'RE MAKING A COMMENT ON IT.

AND IF WE MAKE A MISTAKE, WHO CARES? IT'S JUST A TEST. MAKE THE CORRECTIONS AND TEST AGAIN. HALF THE TIME WE'LL FALL ON OUR FACES — BUT THE OTHER HALF OF THE TIME IT'LL WORK AND BE NEW.

HERE'S A RULE BREAKER —

(A BOW-LEGGED PERSON) 1   9 PASS POS. DOWN   17

BREAK IT DOWN FURTHER ADDING IN 5 AND 13 LIKE THIS —   1   5   9   13   17

STRAIGHT BACK LEG ON 5

FOOT BENT OUTWARDS ON 13

#13 KNEE OPPOSES #17

BREAK IT DOWN AGAIN   1 3 5 7 9 11 13 15 17

3   7   11   15   16 ←FOOT

SPREAD OUT SO ITS CLEARER —   1   3   5   7   9   11   13   15   17

#16 ← FO
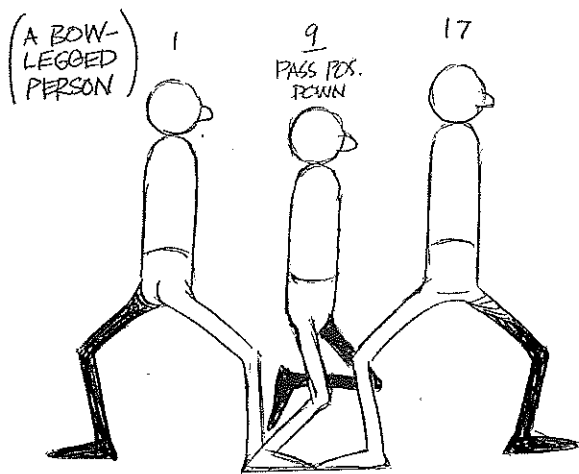
.AND WE HAVEN'T DONE ANYTHING WITH THE HEAD OR ARMS. MAYBE WITH SUCH ACTION ON THE FEET WE SHOULD KEEP THE ARMS and HEAD VERY CONSERVATIVE — MAYBE, MAYBE NOT. THIS WILL WORK ON TWO'S — BUT BE BETTER WITH ONES ADDED BECAUSE OF THE BROAD SPACING

BACK TO NORMALCY FOR A BIT—

(THE HEEL)

The HEEL IS THE LEAD PART.
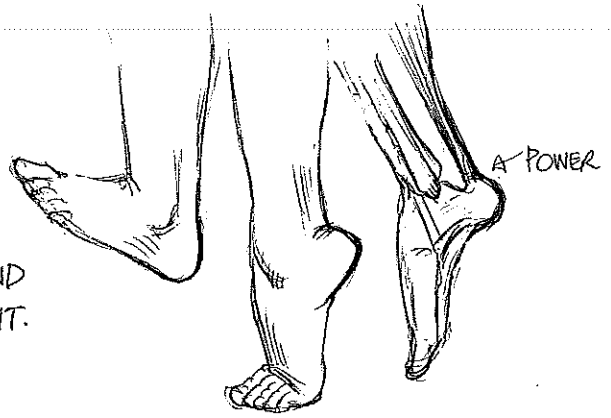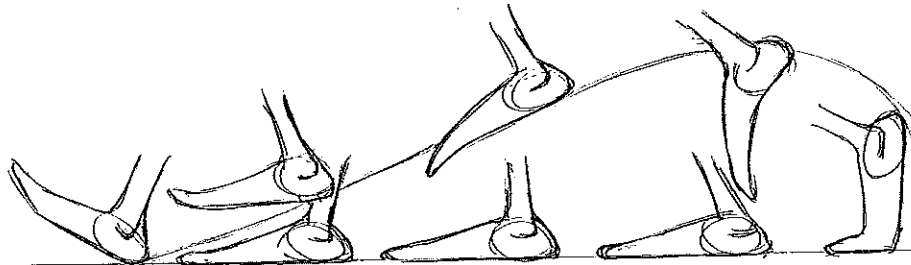The FOOT IS SECONDARY and FOLLOWS ALONG.
The HEEL LEADS and the ACTUAL FOOT DRAGS BEHIND
and FLOPS FORWARD — BUT The HEEL CONTROLS IT.

A POWER

FOR WALKS and RUNS—
    LOCK The HEEL FLAT ON The GROUND FOR The FEELING OF WEIGHT.
    KEEP The FOOT BACK TILL The LAST POSSIBLE MOMENT.

AND
RELUCTANTLY
LEAVES The
GROUND

DELAY—KEEPS
FLAT

AND
DRAPERY
IS
ALWAYS
LATE—

DRAG

DRAG

DRAG

FLOP
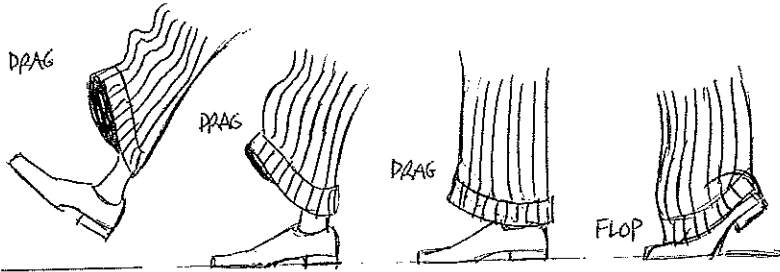
PANTLEG
CATCHES UP—
— GIVES AN
ADDITIONAL
BIT OF LIFE

(FOOT ACTION)

LET'S REVIEW
The PASSING
LEG IN A
NORMAL
WALK—
STARTING
WITH THE
CONTACTS.
(SAY IT'S
ON 8'S)
SPREAD
OUT—

MID
WAY
1

PELVIS
DOWN—
The LOW
3

PASS POS.
SLIGHTLY UP
5

PELVIS UP—
The HIGH
7

MID
WAY
9

THIS IS The
PATTERN OF
A NORMAL
STEP
STARTING
FROM The
CONTACT
POSITION—
DOES The JOB
FOR MOST
THINGS.

BUT LET'S START
WITH THE 2 DOWNS -

As Milt says,
IT'S KIND OF A
STATIC POSITION -

BUT WITH THE
PASSING POSITION UP
WE'VE TAKEN
CARE OF OUR
UPS AND DOWNS.

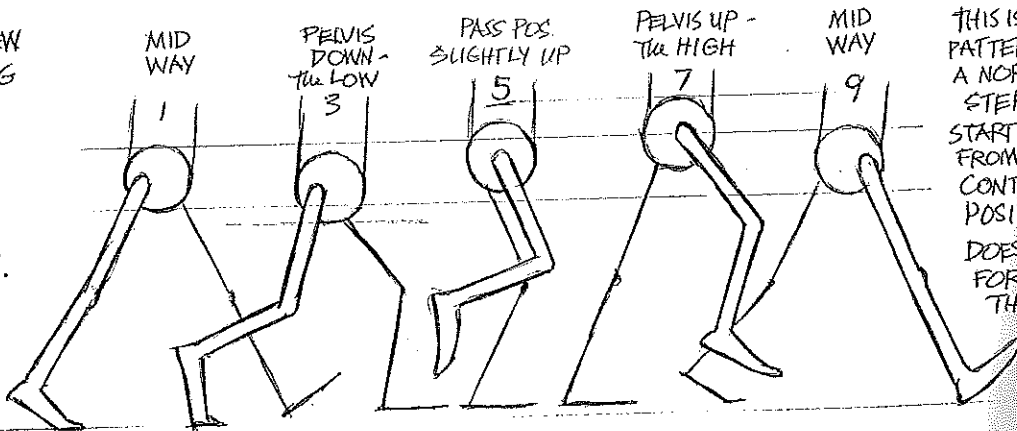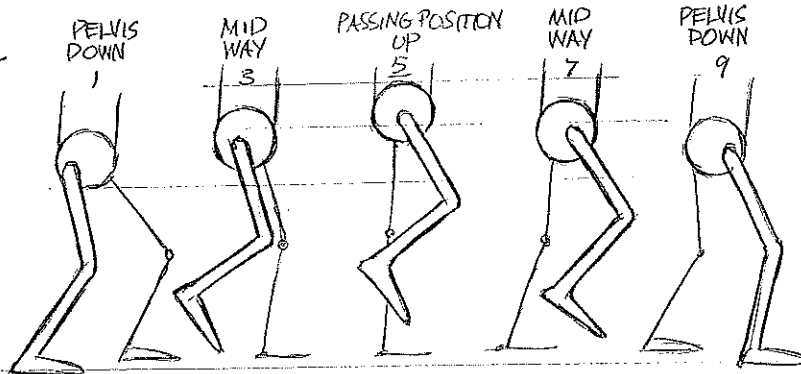PELVIS DOWN 1
MID WAY 3
PASSING POSITION UP 5
MID WAY 7
PELVIS DOWN 9

NOW WE
DON'T HAVE
TO THINK
ABOUT THE
UPS and DOWNS
AND WE CAN
CONCENTRATE
ON DOING
THINGS WITH
THE FEET.

THIS TIME MAKE BOTH FEET FLAT

PUSH IT ALL
TOGETHER
AS IT
WOULD BE
TO TAKE A
NORMAL
STEP -

1 3 5 7 9
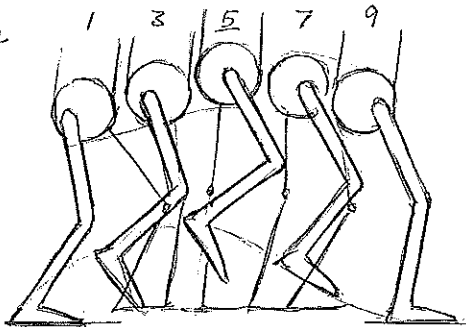
THEN ADD IN
STRAIGHT
IN BETWEENS
AND WE GET
A PATHETIC
APPROACH
TO A WALK -

WEAK,
BORING...

1 2 3 4 5 6 7 8 9
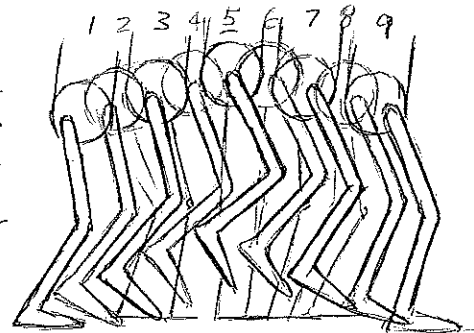
NOW START
WITH THE
EXACT
SAME
THING -

1 5 9
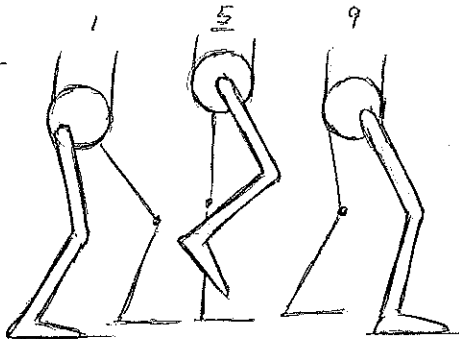
BUT
ALTER
THE NEXT
TWO
BREAKDOWNS -
3 AND 7

= MORE
CHANGE,
MORE
VITALITY

1 3 5 7 9

DELAY THE TOE
LEAVING THE GROUND

LIFT THIS FOOT
HIGHER WITH A DIFFERENT
FOOT ANGLE
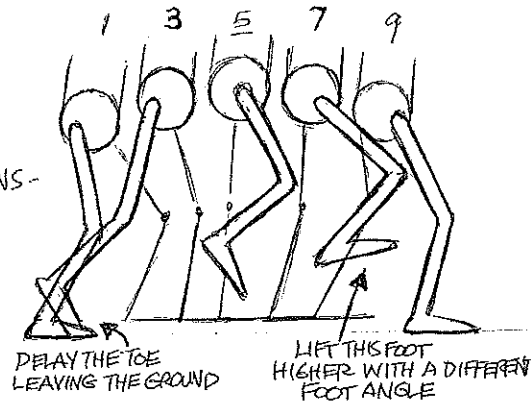
ADD IN
STRAIGHT
IN BETWEENS

(BEARING IN MIND
THAT THE HEEL
LEADS AND THE
FOOT FOLLOWS
AND
WATCH
THE ARCS!)

1 2 3 4 5 6 7 8 9

DELAY
THE FOOT
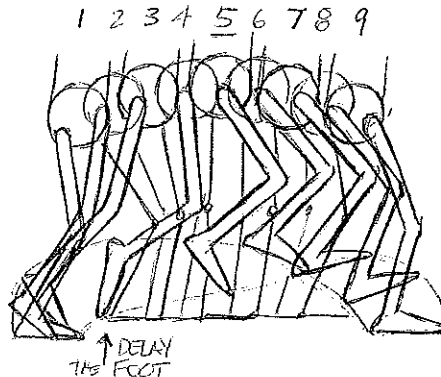
IT'S OBVIOUS
WE'VE GOT MORE
LIFE IN IT
NOW.

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NOW LET'S MAKE IT
MORE SPRIGHTLY.

MAKE #3 STRAIGHT
AS IT PUSHES OFF

and MAKE #7 STRAIGHT
AS IT CONTACTS
the GROUND.

1 3 5 7 9
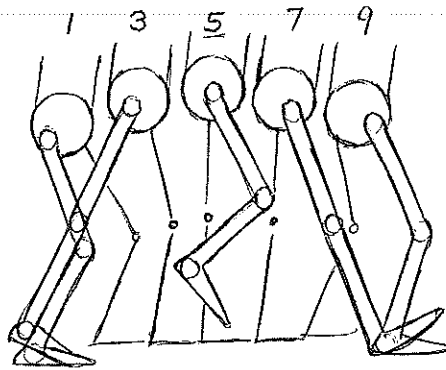
NOW WE'VE GOT
SOME CHANGES!

BENT TO STRAIGHT
— TO BENT
— TO STRAIGHT
— TO BENT.

(ALTHOUGH SO FAR
THIS ISN'T REALLY VERY
DIFFERENT THAN WE'D
END UP WITH IF WE'D
STARTED FROM OUR
CONTACT METHOD.)

ANYWAY — ADD IN
STRAIGHT
IN BETWEENS

EXCEPT KEEP
the FOOT SOLE
FLAT ON #2
AND
HAVE THE FOOT ON #8
FLAT LIKE #9

1 2 3 4 5 6 7 8 9

↑
DELAY FOOT
ON #2

↑
FLAT FOOT
ON #8
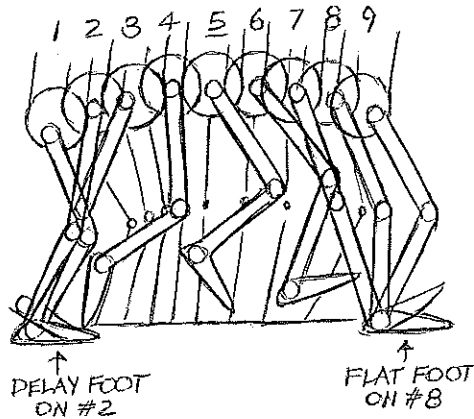
WE'VE GOT
CHANGE AND
VITALITY —
the LEG AND FOOT
PASS FAST THROUGH
the MIDDLE
AND CLUSTER
AT the BEGINNING
and END of the STEP.

NOW WE'LL FIND
METHOD IN THE
MADNESS —
HERE'S WHAT ART
BABBITT MIGHT DO —

START WITH the SAME
3 BASIC POSITIONS

BUT PUT #1's FOOT ON BACKWARDS →

1 5 9

LEAVE the PASSING
POSITION AS IS,
BUT DELAY
the FOOT ON #3
and
MAKE the FOOT ON #7
BACKWARDS
AGAIN.

1 3 5 7 9

↖ DELAY
the FOOT

↑FOOT ON
BACKWARDS

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NOW ADD IN
2, 4, 6 and 8

2 AND 8
ARE ALSO
ECCENTRIC

1 2 3 4 5 6 7 8 9

MAKE #2
STRAIGHT!
AND DON'T
MOVE THE FOOT

MAKE #8
STRAIGHT!
AND THE HEEL
CONTACTS

#4 IS JUST AN
INBETWEEN

#6 IS AN
INBETWEEN BUT THE
HEEL LEADS THE ARC
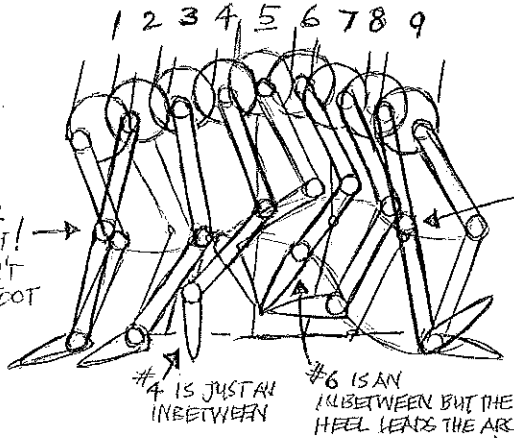
THIS WAY OF WORKING AND THINKING IS THE BASIS OF THE KIND OF THING ART DID WITH
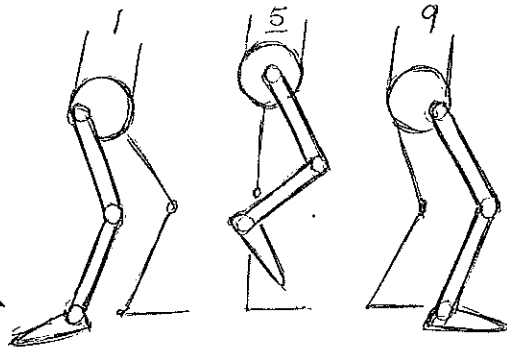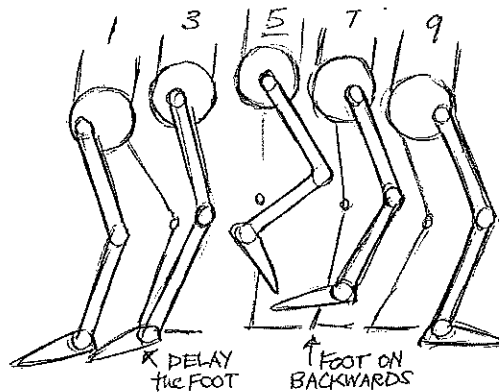HIS 'GOOFY' WALKS. IT HAD A TERRIFIC INFLUENCE ON ANIMATORS.

ART ALWAYS SAID,
'WHEN WE'VE GOT AN OPPORTUNITY TO INVENT — CERTAINLY WE'VE GOT
THE RIGHT MEDIUM FOR IT.
THAT'S WHAT SEPARATES US FROM LIVE ACTION — WE CAN INVENT.'

NORMALLY A FOOT PICKS UP SLOWLY —

THEN TRAVELS QUICKLY
THROUGH THE MIDDLE

AND PUTS DOWN FAST.

1 2 3 4 5 6 7 8 9 10 11 12 13
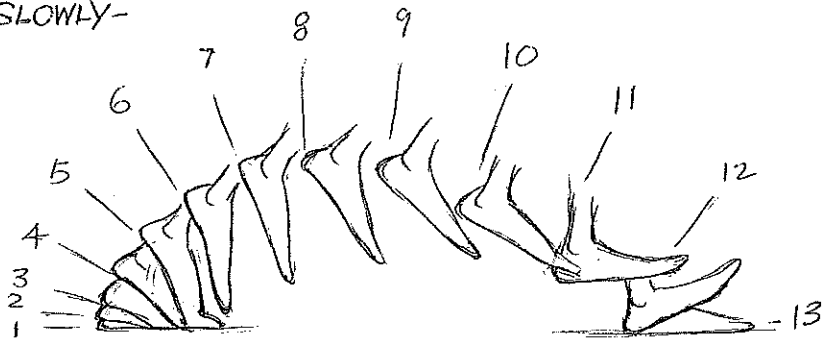
WHY NOT REVERSE IT?

HAVE THE FOOT
PICK UP FAST (1 TO 5)

PASS THROUGH THE
MIDDLE NORMALLY (5 TO 11)

AND HAVE A SLOW
PUT DOWN (11 TO 15)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
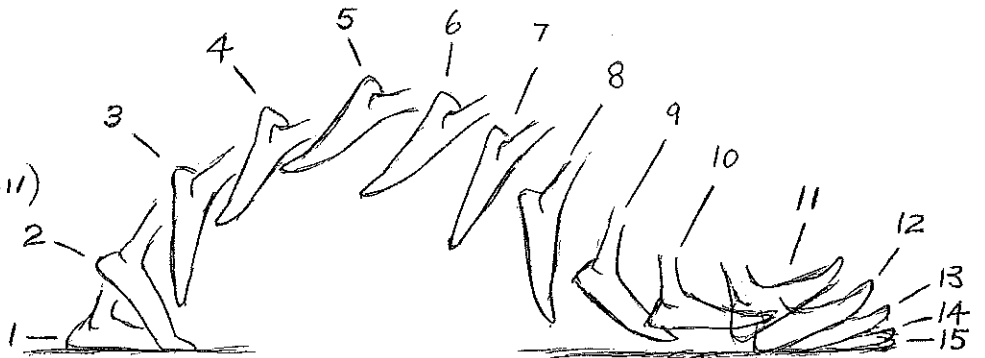
AND THIS IS EXACTLY WHAT THE LIVE ACTION MIME ON THE NEXT 2 PAGES IS DOING —

ANTICIPATES WALK (TRACED ON TWOS)

ON ONES NOW—
LIFTS FOOT FAST

① 3 5 7 9 10 11 12

LIFTS

20 21 22 23 24
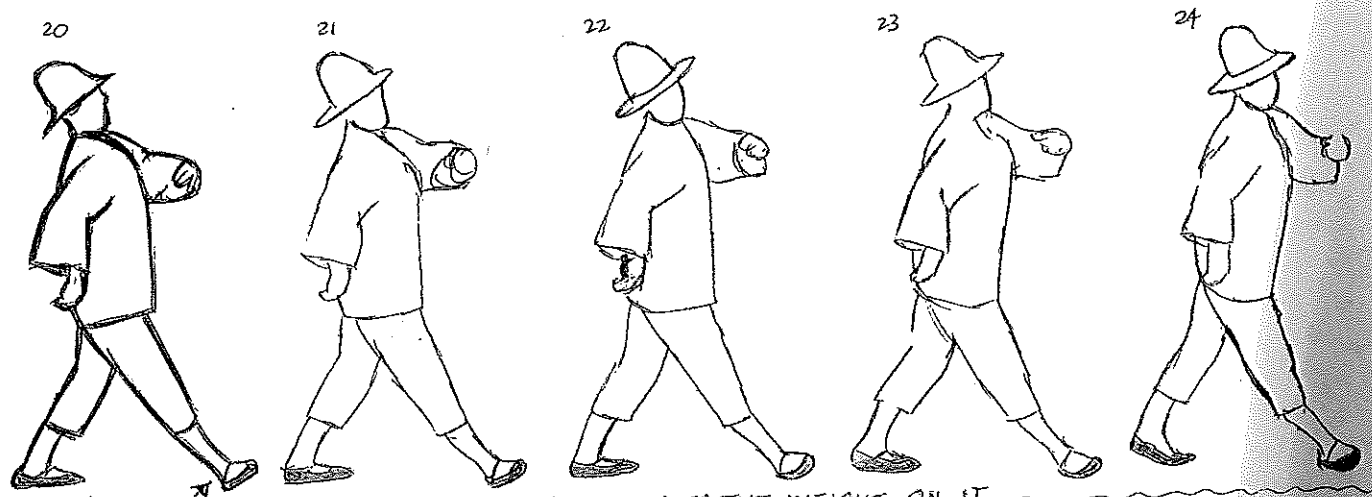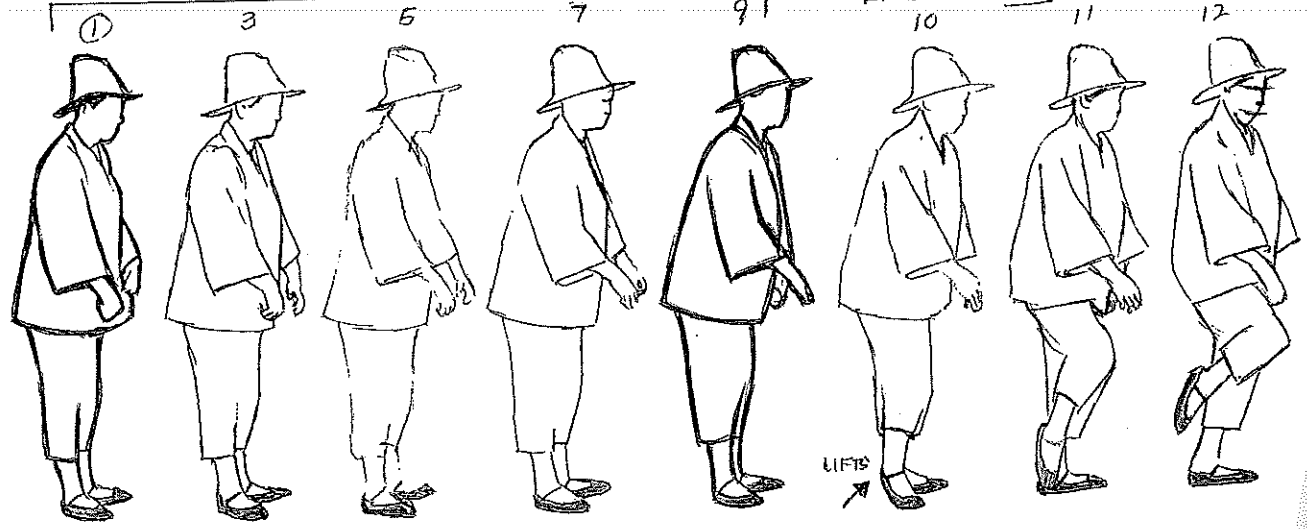
THE CONTACT

AND SLOWLY PUTS THE WEIGHT ON IT

32 33 34 35 THE LOW 36 37
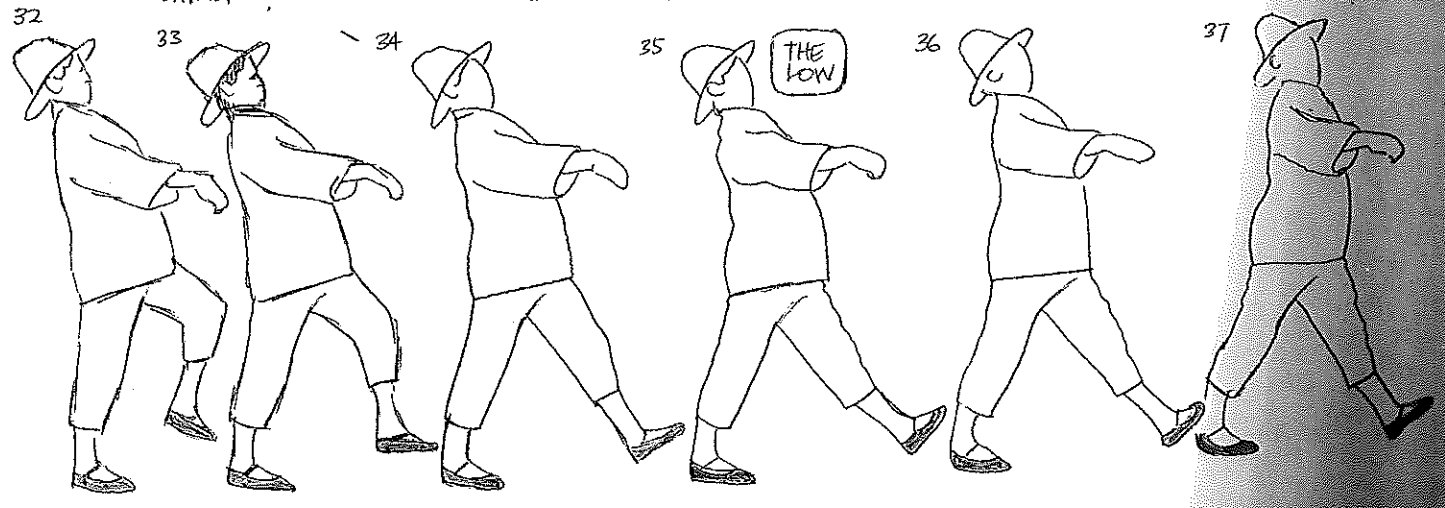
(HER STARTING STEP TAKES 12 FRAMES — HER FOLLOWING STEP TAKES 19 FRAMES)

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SWINGS FOOT THROUGH ———

PASSING POSITION
THE HIGH
13

14 15 16 17 18 ← the LOW → 19

(STILL NO CONTACT)

25 26 27 28 PASS POS. UP 30 31
29

LIFTS
FOOT
FAST

38 39 40 41 42 43 44
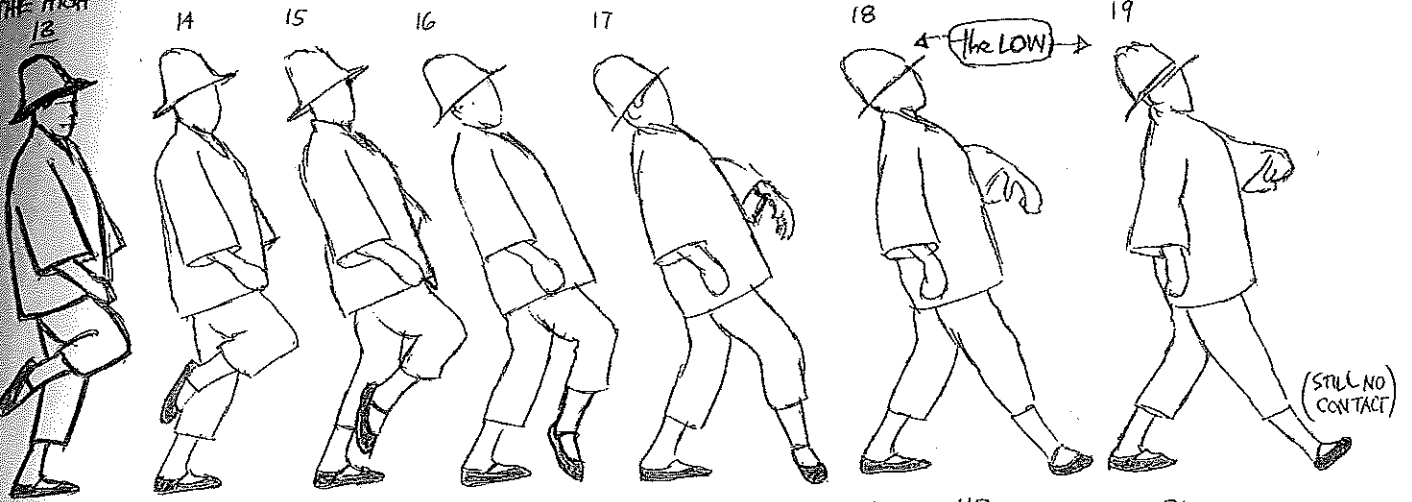
THE CONTACT   AND PUTS THE WEIGHT ON IT ～～～   PASS POS UP
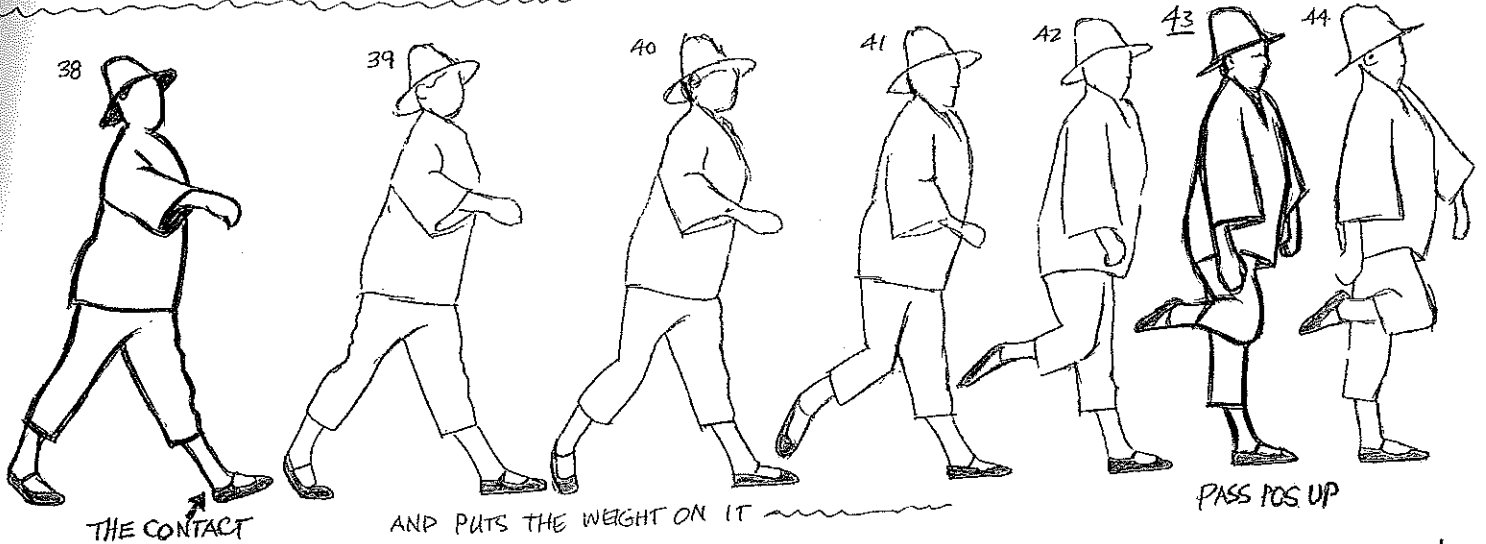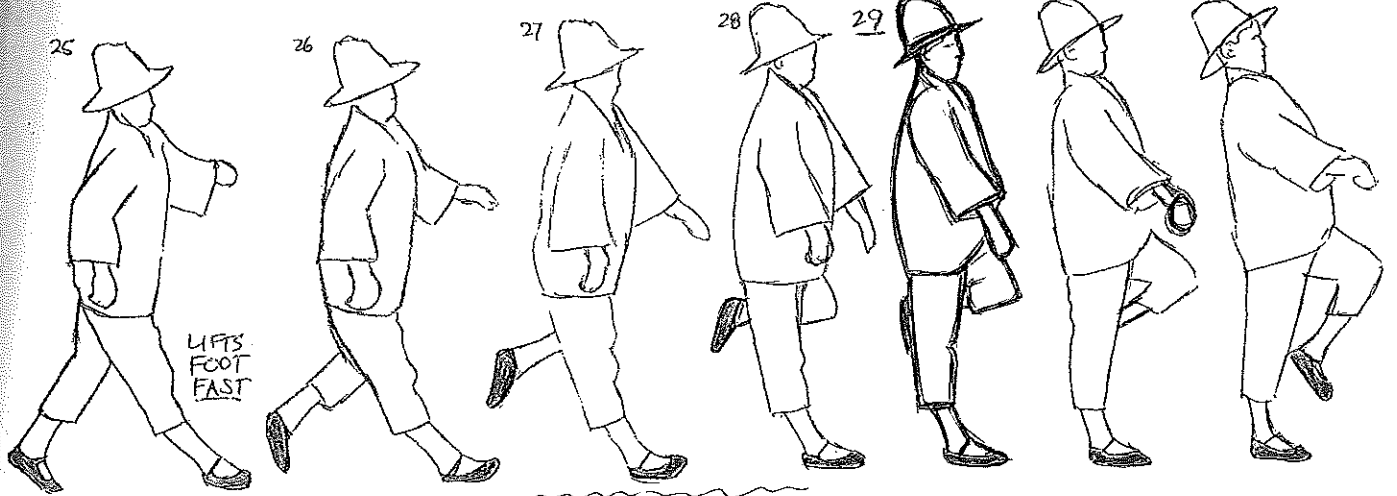
AND IF SHE CAN DO ALL THIS "LIVE" HOW MUCH FURTHER SHOULD WE BE ABLE TO GO IN ANIMATION!

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WE HAVEN'T YET QUITE SHOWN THE SPACING AND CUSHIONING ON A NORMAL WALK.
HERE'S A FORMULA SPACING FOR THE 'CONVENTIONAL' WALK ON 12'S. (SPREAD APART)

CONTACT   DOWN   PASS POS GOING UP   FULLY UP   CONTACT

1   4   7   10   13
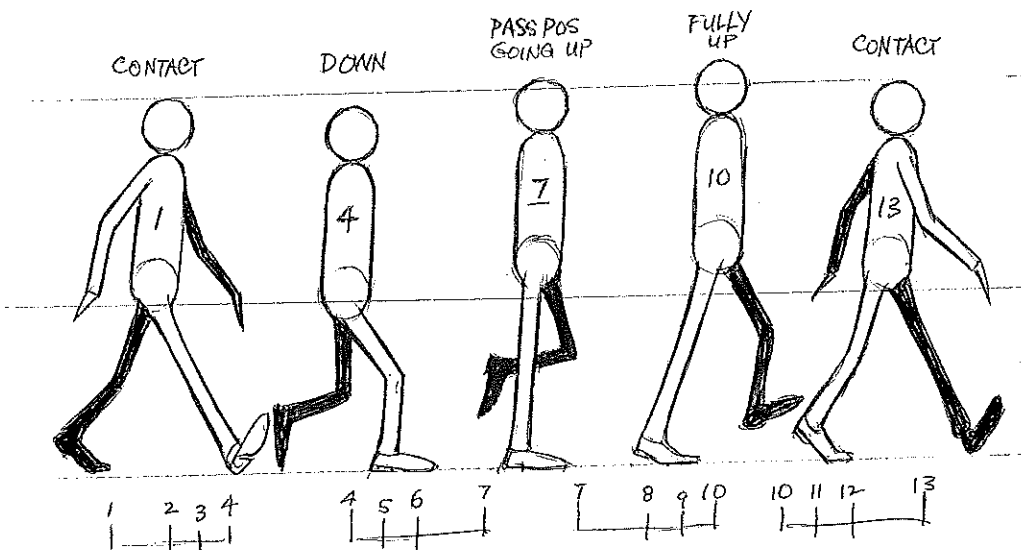
WE SPEED THRU THE CONTACT and CUSHION INTO THE DOWN #4 EASE OUT OF THE DOWN and SPEED THRU THE PASS POS. #7 and CUSHION INTO AND OUT OF THE HIGH #10

1   2 3 4   4 5 6   7   7   8 9 10   10 11 12   13

CUSHION   CUSHION   CUSHION

IT LOOKS A BIT ODD SPREAD OUT LIKE THIS BUT IT WORKS FINE WHEN COMPRESSED AS IT WOULD BE —

1   2 3 4 5 6   7   8 9 10 11 12   13   ETC ETC ETC

AN 8 FRAME WALK USES EXACTLY THE SAME DRAWINGS —

WITH JUST SINGLE IN BETWEENS

2   1   6   8

1 1 3 / 2   3   3 1 5 / 4   5 5 7 / 6   7 7 9 / 8   9

142
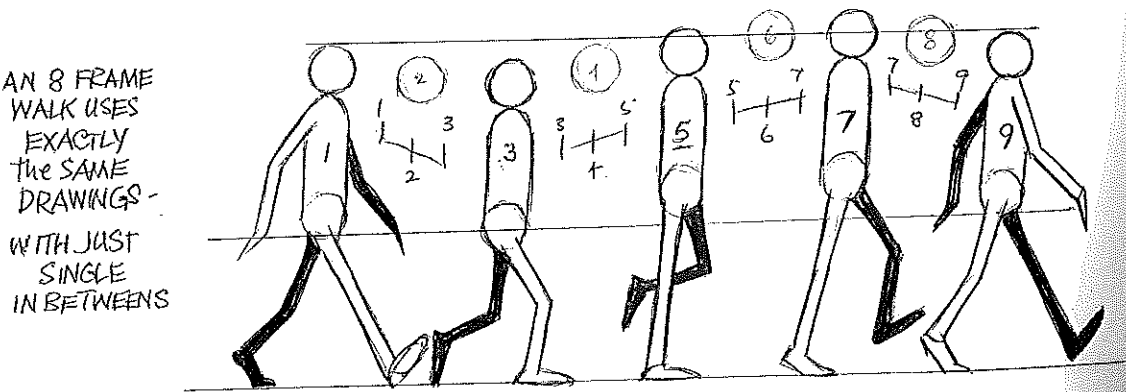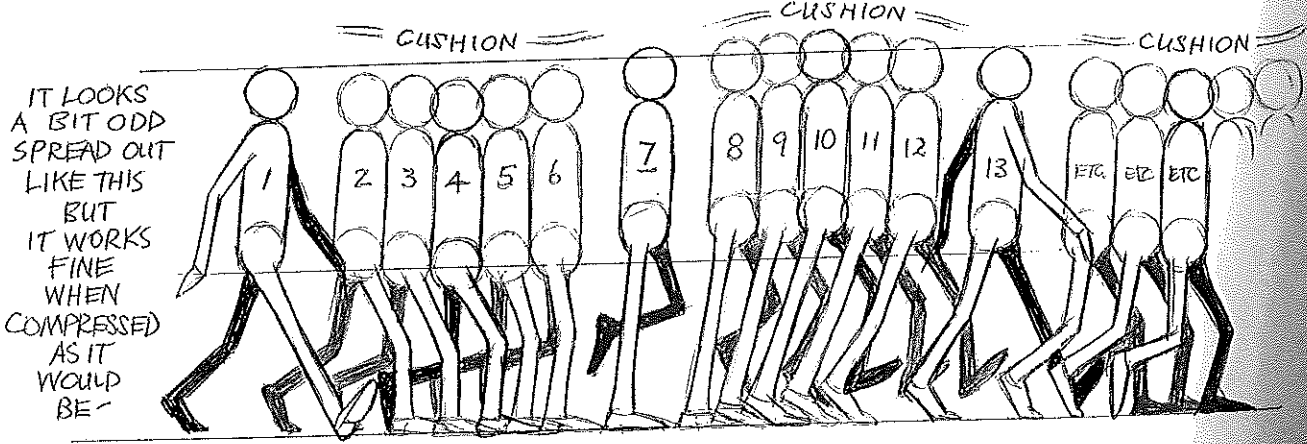
BACK TO INVENTION—

WHAT ABOUT
STARTING WITH
the DOWN POSITION
AND TAKING IT
DOWN
FURTHER?

KIND OF A
GROUCHO
MARX
WALK—

9 (PULLED APART)

17   19   21   23   25   27   29   31   33 AS ①   35

41
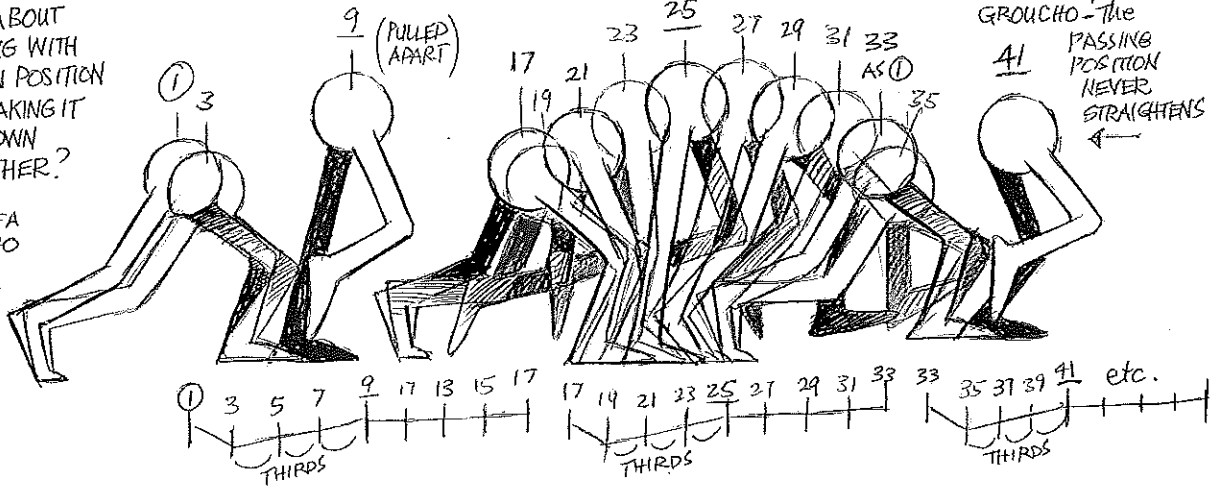
OR MAYBE, LIKE
GROUCHO—The
PASSING
POSITION
NEVER
STRAIGHTENS

① ③

① 3 5 7 9 17 13 15 17   17 19 21 23 25 27 29 31 33   33 35 37 39 41   etc.
THIRDS   THIRDS   THIRDS

NOW
LET'S START
TO TWIST
THINGS—

BUTT
TWISTS
AWAY

START WITH the FOOT
KIND OF ON BACKWARDS

FOOT
SWIVELS

FOOT LANDS
TWISTED IN the
WRONG DIRECTION
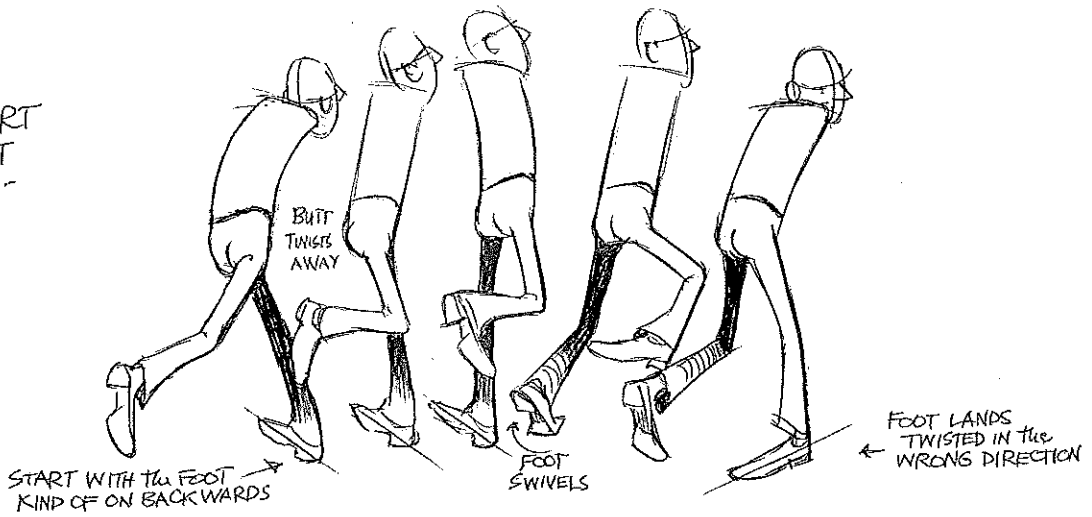
VARIATION
ON THE SAME
SORT OF THING—

IS THIS
CLOSER
UP

REACH FOR
GROUND
THIS WAY

143
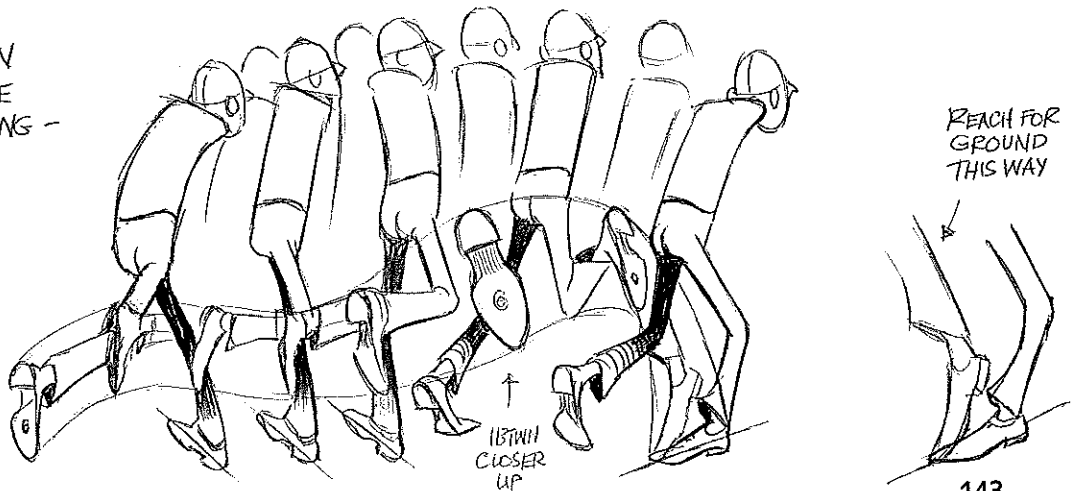
LET'S KEEP FOOLING WITH HOW THE FOOT GOES DOWN —

DOWN

UP

DOWN

UP

KNEE REVERSES
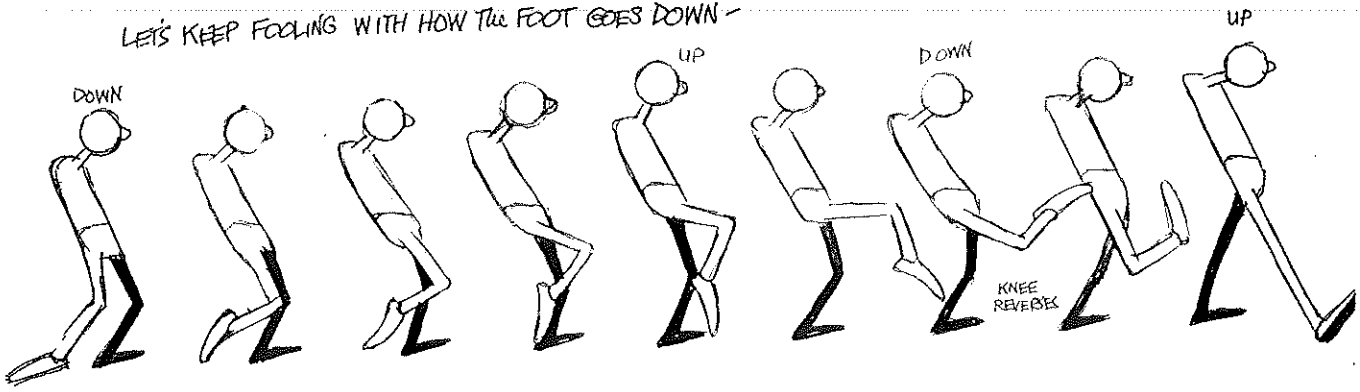
OR THIS FOR THE OTHER FOOT —

UP

DOWN

UP

KNEE REVERSES
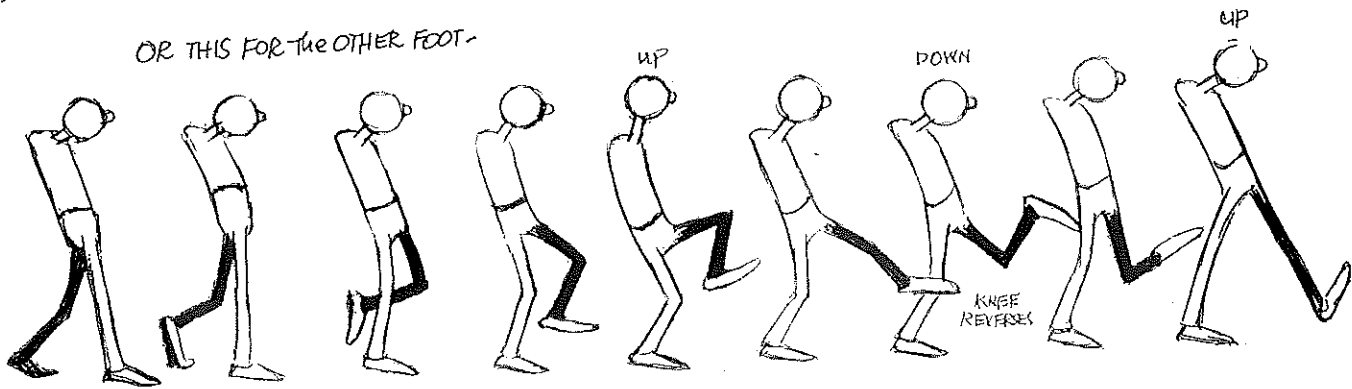
WALKING BACKWARDS WITH THE FEET ON BACKWARDS —

STANDING FOOT SWIVELS
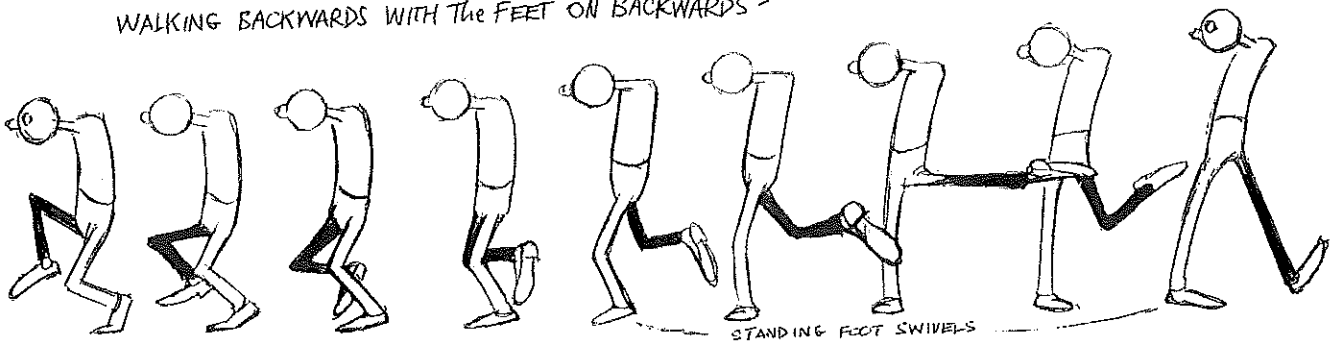
NO HUMAN COULD DO IT BUT IT WORKS CONVINCINGLY —

144
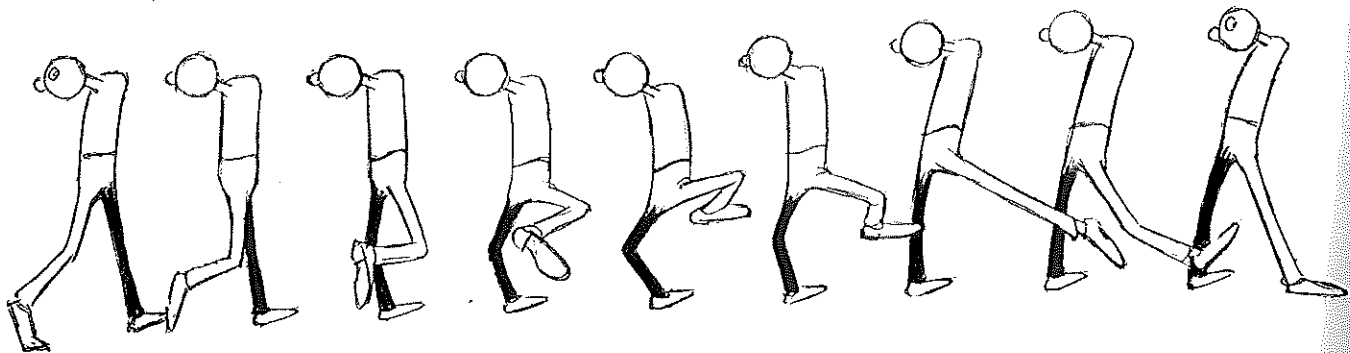
AGAIN, WE CAN INVENT WHAT DOESN'T TAKE PLACE IN THE REAL WORLD.

ART BABBITT SAID, "A GOOD DANCER INVENTS. ITS' NOT NATURAL FOR A PERSON TO LEAP INTO THE AIR - DO 'SCISSORS WITH THEIR FEET' AND THEN LAND ON THEIR TOES. WE CAN DO ANYTHING WE WANT AS LONG AS WE MAKE IT 'WORK' - MAKE IT LOOK BELIEVABLE."

LET'S WALK A DANCER 'ON POINT' - ON TWOS

PASS POS
9

KNEE
LEADS

PASS POS
25
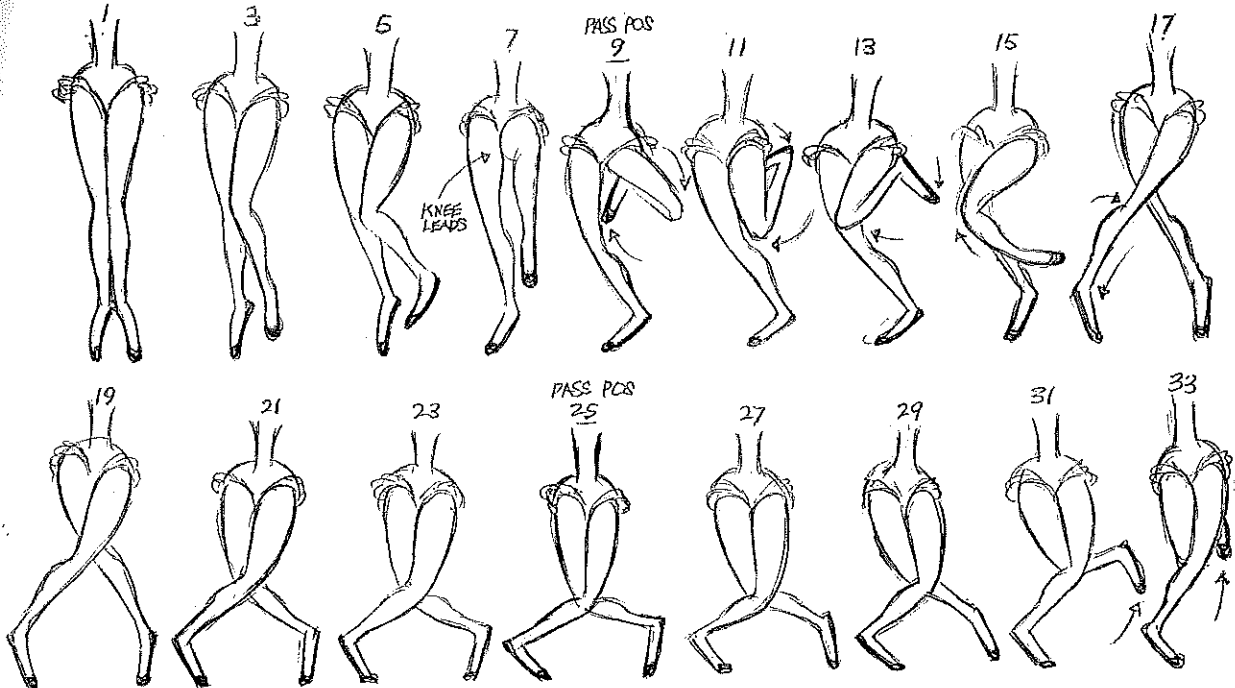
THE KNEE MAKES
A CIRCLE - 35
THE LEG
FOLLOWS

PASS POS
41

PASS POS
53

PASS POS
61

145
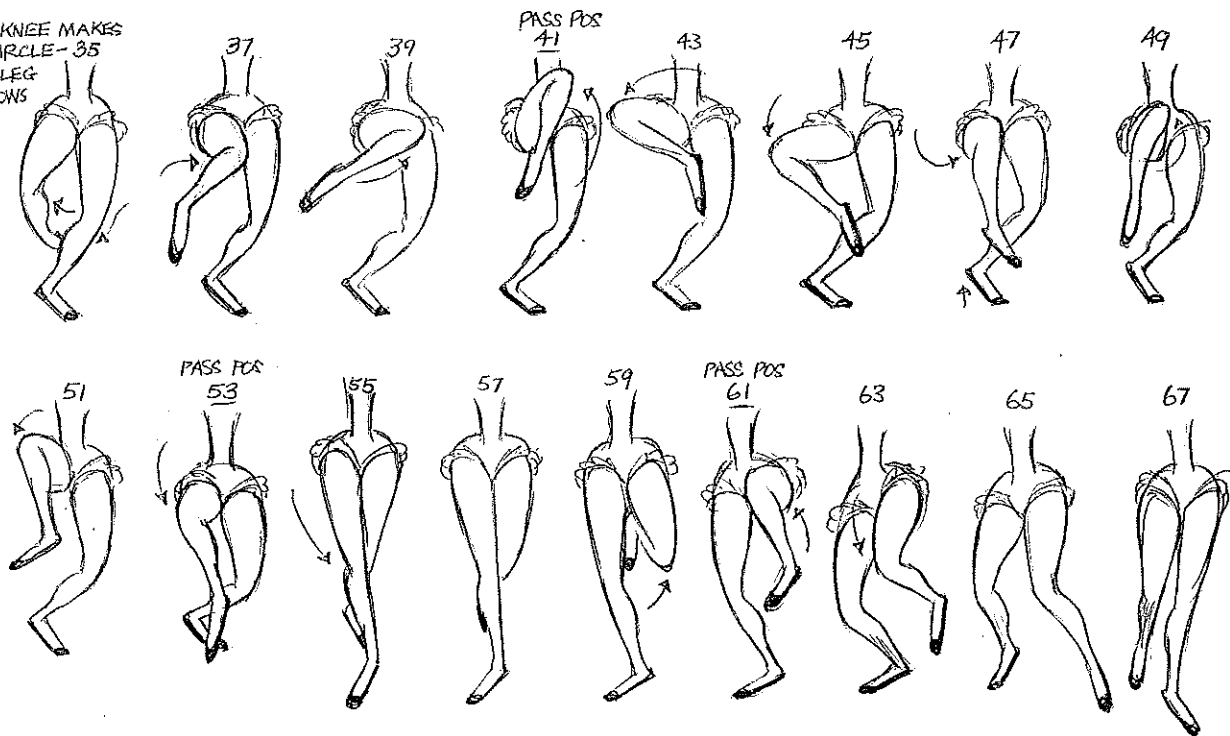
WEIGHT SHIFT

THE WEIGHT SHIFTS FROM ONE FOOT TO ANOTHER IN A NORMAL STRIDE.

EACH TIME WE RAISE A FOOT IT THRUSTS THE WEIGHT OF OUR BODY FORWARD AND TO THE SIDE OVER THE OTHER FOOT.

AND the SHOULDERS MOSTLY OPPOSE the HIPS and BUTTOCKS.

CONTACT   The DOWN   PASS POS. UP   CONTACT   The DOWN   PASS POS UP   CONTACT

PLANTS The FOOT

AND TAKES the WEIGHT TO the SIDE OVER the FOOT

STRAIGHTENS - BUT the LIFTED PASSING LEG CAUSES The WEIGHT TO DROP ON ITS SIDE

PLANTS The FOOT

AND TAKES The WEIGHT TO The SIDE OVER THAT FOOT

STRAIGHTENS - BUT the LIFTED PASSING LEG CAUSES The WEIGHT TO DROP ON ITS SIDE

PLANTS The FOOT

HERE'S AN EXAGGERATED WEIGHT SHIFT FORMULA -

(NOT SO MUCH SHIFT FOR RUNS)

CONTACT   PASS POS.   CONTACT   PASS POS   CONTACT

WEIGHT OVER HIS LEFT FOOT

WEIGHT OVER HIS RIGHT FOOT

146

(THE BELT LINE)

TILT the BELT LINE
BACK AND FORTH
FAVOURING the LEG
THAT IS LOWEST.
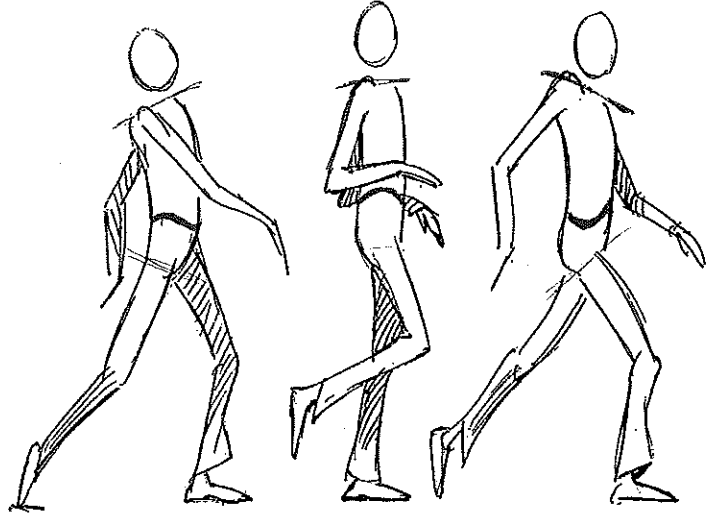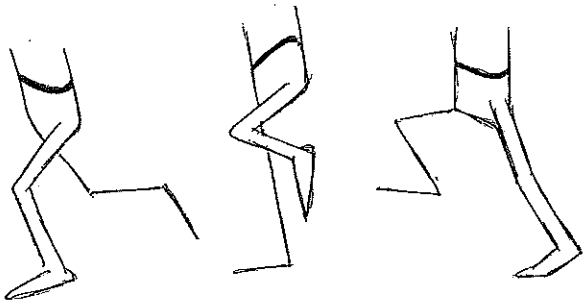
NORMALLY the BELT LINE IS DOWN WITH THE FOOT THAT IS DOWN
AND UP WITH THE FOOT THAT IS UP.

AND
NORMALLY
the SHOULDER
OPPOSES
the PELVIS
(BUT WE
CAN DO WHAT
WE LIKE)
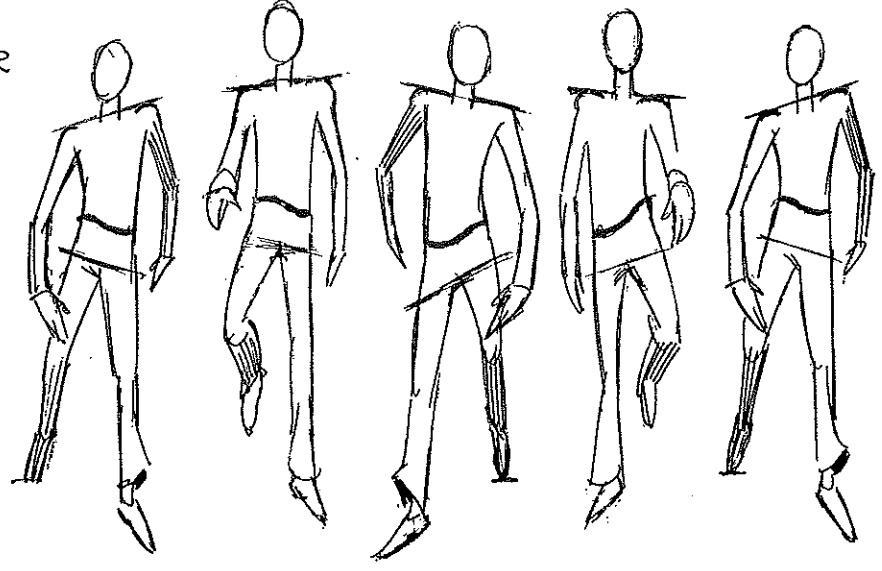
WHILE the SHOULDER RISES UP
IN the PASSING POSITION
The HAND IS AT The LOWEST PART of The ARC

PASS
POS.

The WRIST
MAINTAINS
the ARC.

ARC
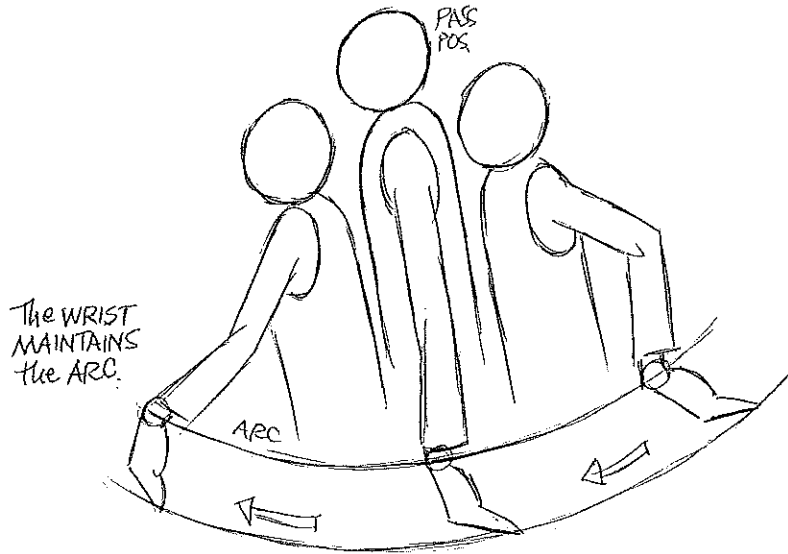
MOST ACTIONS
FOLLOW ARCS
- GENERALLY
AN ACTION
IS IN AN ARC
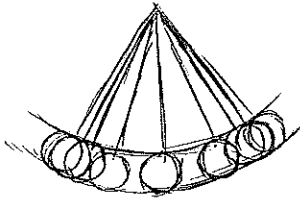
AS THEY SWING TO BALANCE the THRUST
OF THE WALK - the ARMS WILL TEND
TO BE IN A WAVELIKE
PENDULUM - LIKE MOVEMENT.

MOST OF the TIME the
PATH OF ACTION IS EITHER
AN ARC OR A SORT OF
FIGURE 8
- BUT SOMETIMES
ANGULAR OR STRAIGHT

WITH the LEG
The HEEL
MAINTAINS
The ARC
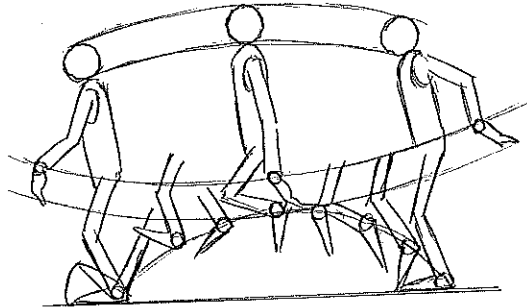
AND JUST TO MAKE LIFE DIFFICULT, WE SHOULD REMEMBER THAT 'NORMAL' - the GOVERNMENT -
- ISSUE WALK - The ARM SWING IS AT ITS WIDEST ON the DOWN POSITION, NOT ON The CONTACT POSITION.

DOWN   PASS POS   UP

WIDEST   POINT OF
SWING
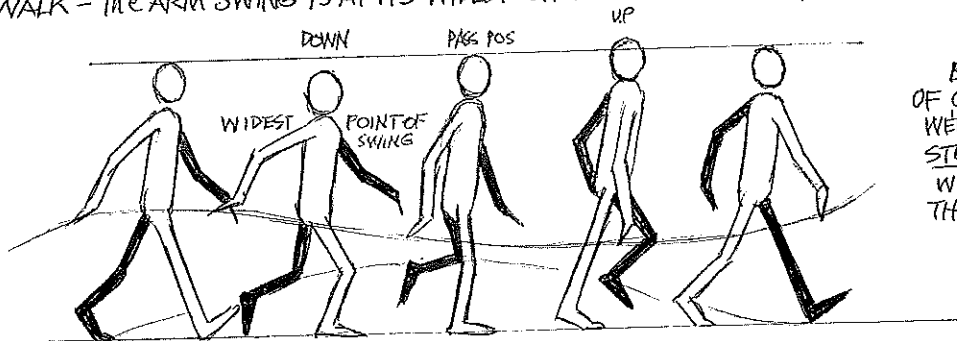
BUT
OF COURSE
WE'RE NOT
STUCK
WITH
THIS -

148

ARM MOVEMENTS CAN BE BROAD OR PRACTICALLY NON-EXISTANT -

TO GET MORE FLEXIBILITY BRING THIS HAND **ALL** THE WAY ROUND

AND THIS HAND ALL THE WAY BACK

TAKE the FEET OFF the PARALLEL -

TWIST the FEET and TWIST the HANDS -

NOT IN PROFILE

OR

DON'T MOVE the HANDS MUCH
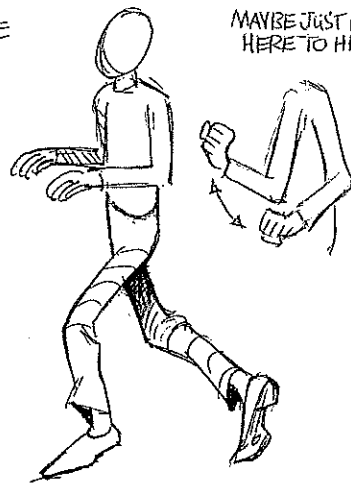
MAYBE JUST FROM HERE TO HERE

TWIST

TWIST

HOW ABOUT the ARMS UP LIKE THIS ON AN UP PASSING POSITION -

AND DOWN ON the EXTREMES.
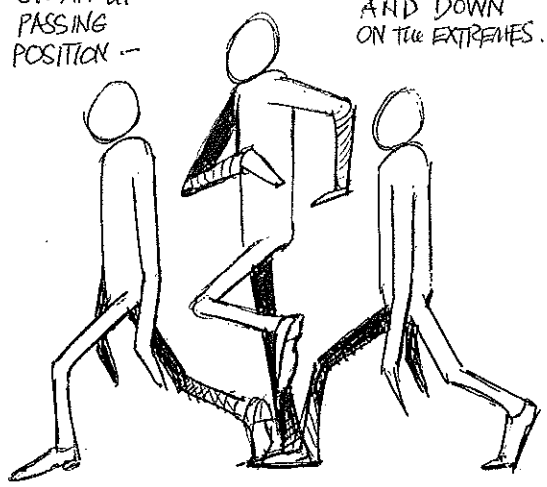
OR SAME THING WITH A DOWN PASSING POSITION -

149
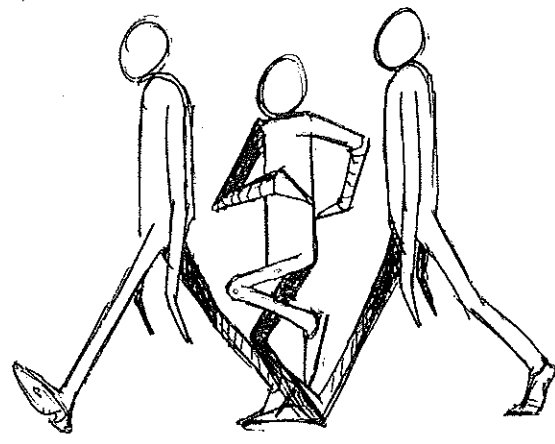
HOW ABOUT HAVING
the ARMS RIGHT UP
ON The EXTREMES
and the
ARMS RIGHT DOWN
on the
PASSING
POSITION
(WHICH IS
ALSO DOWN)
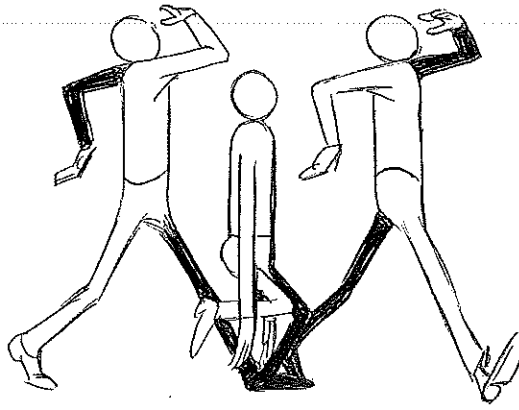
HERE'S A JAUNTY WALK
DOING JUST THAT - AND A LOT OF The THINGS WE'VE BEEN TALKING ABOUT: BELT LINE, SHOULDERS OPPOSE HIPS -
TILTING and DELAYING HEAD, TWISTING FEET - REVERSING BODY.

150

TO GET SOME FLEXIBILITY IN AN ARM SWING
WE'D DRAG THE HAND —

(THE WRIST
MAINTAINS
THE ARC)

GOING THIS WAY

AND COMING BACK
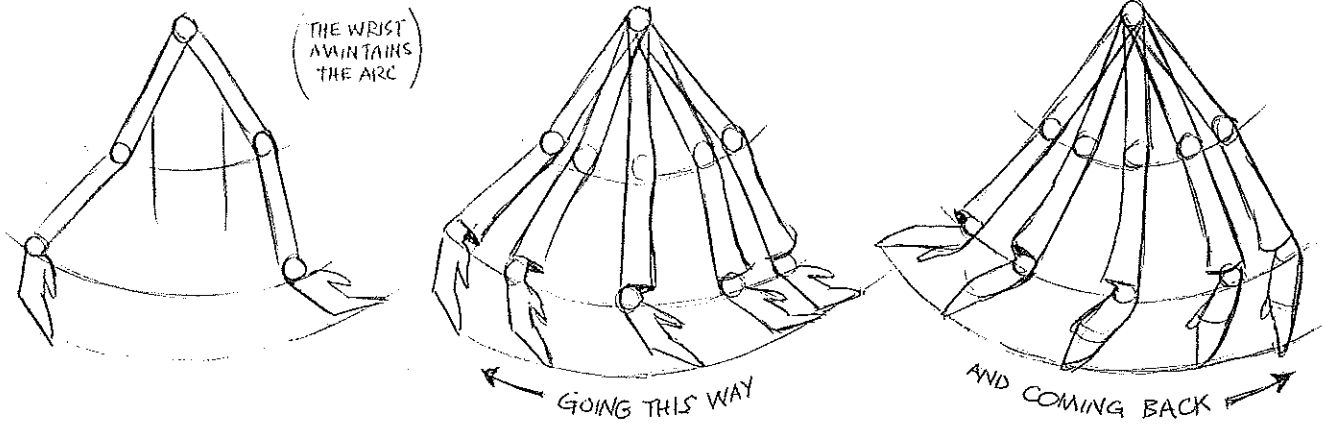
AND THIS WILL GIVE US A NICE
LITTLE OVERLAP OF THE HANDS
AT EACH END OF THE SWING —
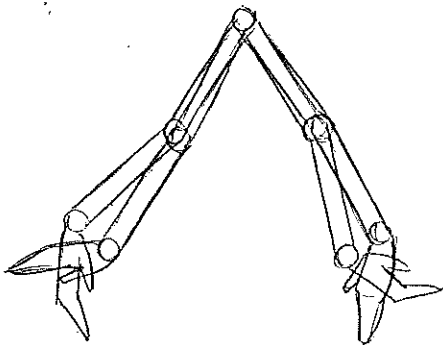
AND WE CAN GET A BIT
MORE FLEXIBILITY
INTO IT BY
DROPPING the SHOULDER
ON the PASS POSITION —
MAKING
A DEEPER ARC.

DROP SHOULDER ON PASS POS.
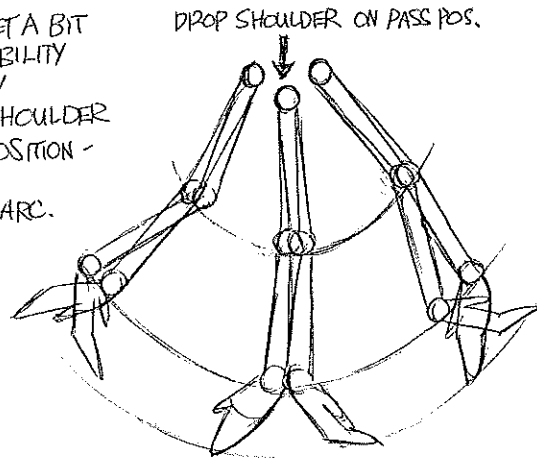
BUT HERE'S THE SECRET —

WHEN WE GO
FORWARD WE'LL
'BREAK' (BEND)
the ELBOW JOINT
WHETHER IT LOOKS
RIGHT OR WRONG
AND WHETHER IT
WOULD BEND
THAT WAY OR NOT.
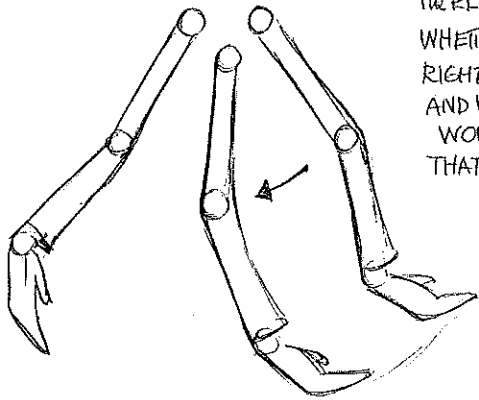
AND WHEN WE COME BACK, WE'LL 'BREAK'
(BEND) IT AGAIN — ALTHOUGH GOING THIS WAY
IT LOOKS QUITE
NORMAL —
A NATURAL
'BREAK' OR
BEND.

151
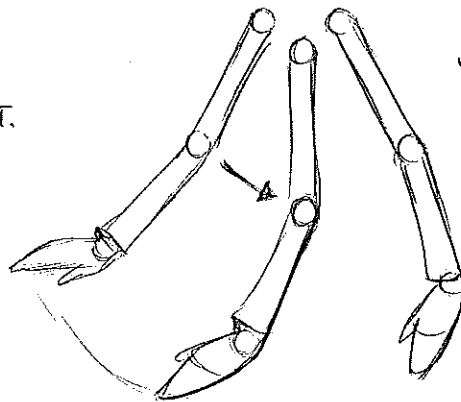
SO, FOR GREATER FLEXIBILITY-

C   B   A
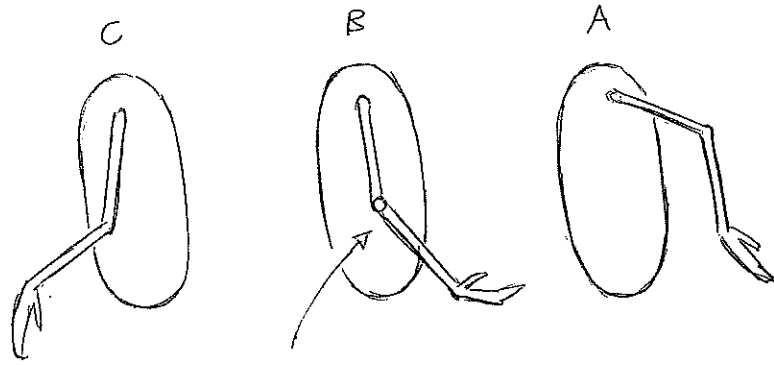
BY BREAKING THE JOINT
WE CAN GET LIMBER MOVEMENT FROM <u>STRAIGHT</u> LINES,
WE WON'T HAVE TO DRAW IN A RUBBERY CARTOONY WAY TO BE LIMBER.

LET'S MAKE THIS REALLY CLEAR — AS WE'RE GOING TO HAVE A LOT OF THIS...

Ⓐ
Ⓑ
PASS POS
Ⓓ   Ⓒ

Ⓑ
Ⓐ
BETTER STILL,
OVERLAP
THE HANDS
Ⓓ   Ⓒ
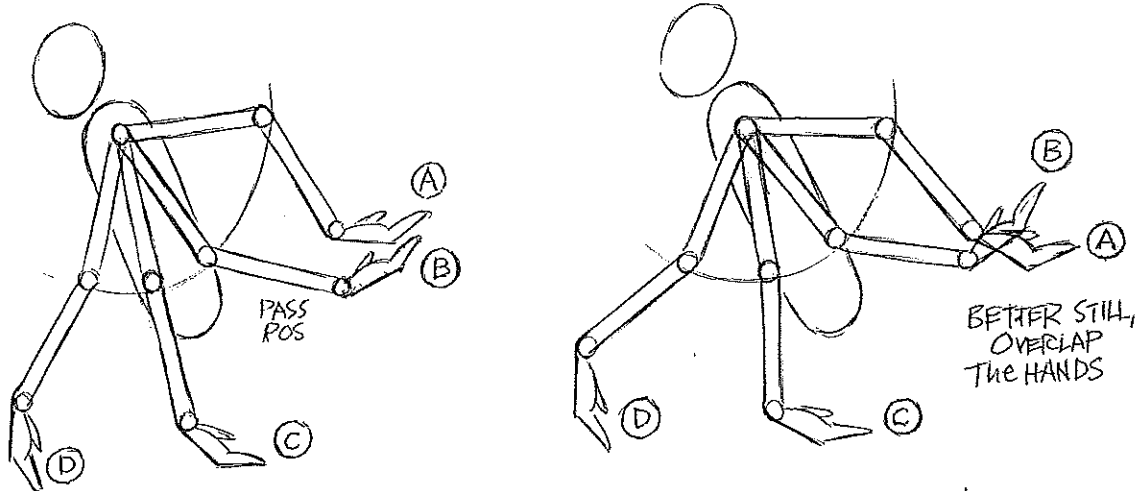
BUT WON'T IT LOOK STRANGE? NOT ON THE SCREEN. WHEN INBETWEENED IT'S PROBABLY
GOING TO BE FOR 4 FRAMES OR SO, 1/6 OF A SECOND. TOO QUICK TO 'READ'. BUT WE'LL 'FEEL'
IT— WE'LL FEEL THE INCREASED FLEXIBILITY — INCREASED 'CHANGE'.

(I THINK OF IT AS
"THE DOUBLE X")

SOMEONE ASKED FRED ASTAIRE HOW ON EARTH HE
COULD DANCE AND MOVE LIKE THAT — AND HE SAID,
'OH, I JUST START BY PUTTING BOTH FEET IN THE AIR!
BUT IF YOU ANALYSE FRED ASTAIRE FRAME BY FRAME
YOU'LL SEE THAT HE'S BREAKING JOINTS ALL THE TIME
ALL OVER THE PLACE.
SENSING THIS,
THEY PERCEPTIVELY CALLED HIM 'THE HUMAN MICKEY MOUSE'.

XX

152
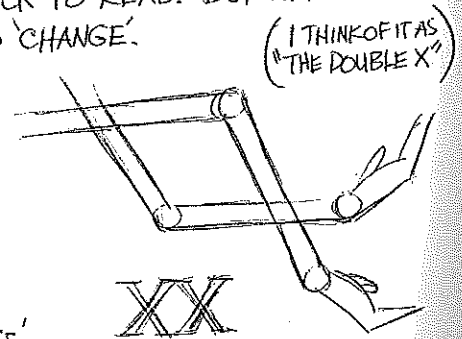
HERE'S AN ADAPTATION OF A SUPERBLY ANIMATED FLAMBOYANT ARM SWING —
BREAKING THE JOINTS LIKE MAD —

CONTACT

DOWN

PASS POS.

UP

CONTACT

①   3   5   7   9   11   13   15

17 (AS #3)   19 (AS #5) DOWN

FROM THE SIDE:

HAND LOOPS AT ENDS OF SWING

15   13   11   PASS POS 9   ①   3   5   7

AND GOING BACK —

(AS ①)

15   17   19   PASS POS
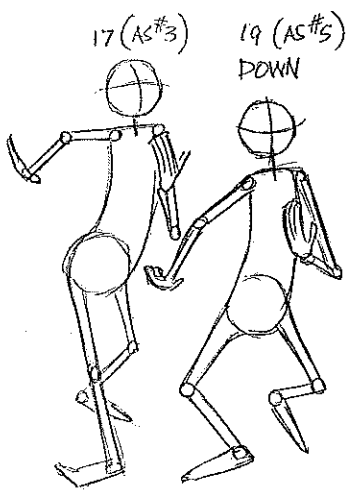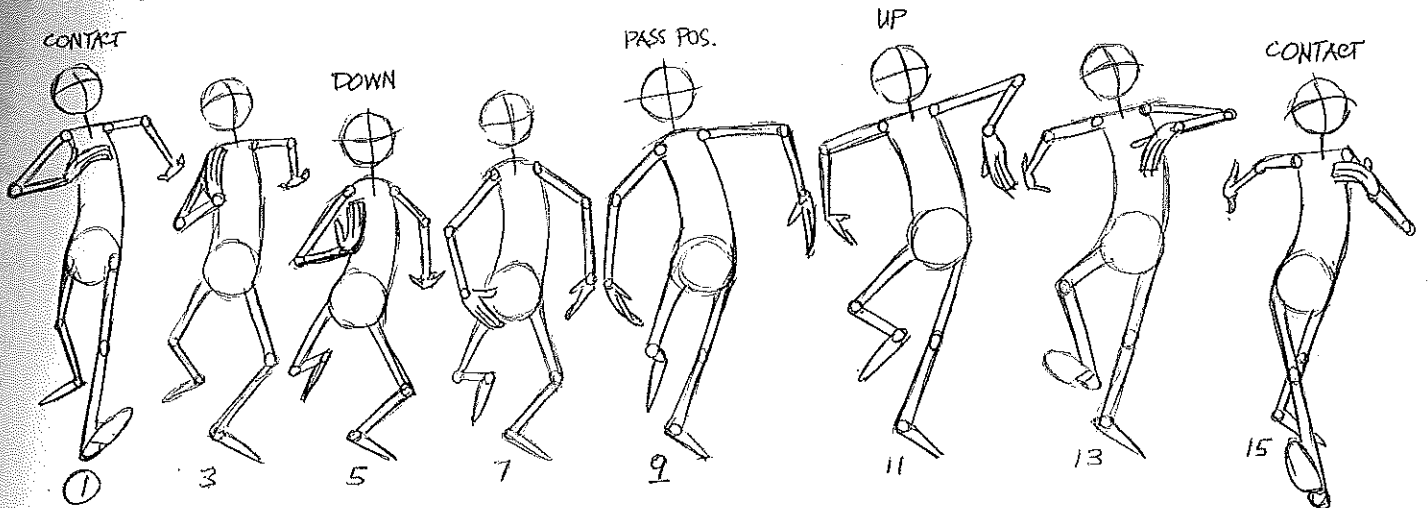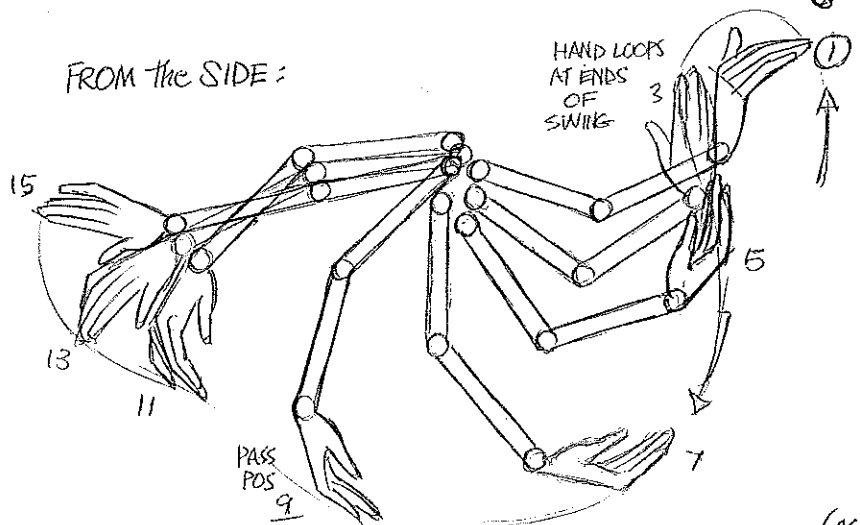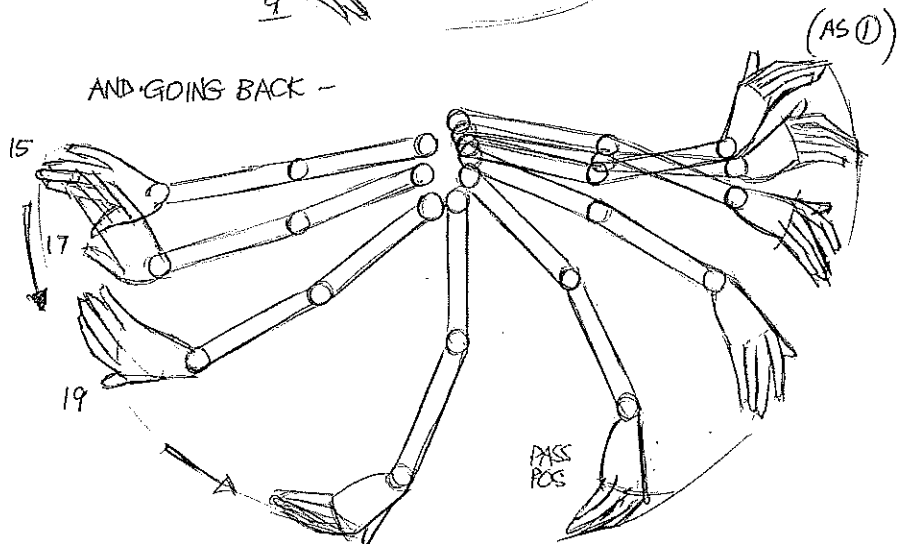
BREAKING
THE JOINTS
(OR WHATEVER YOU
WANT TO CALL IT)
IS SECOND NATURE
TO THE EXPERTS.

"OH, YOU HAVE TO DO THAT!
EVERYBODY KNOWS THAT."

153

<u>KEEPING TO STICK FIGURES</u>

I FIND THAT ONCE THE DRAWINGS ARE EVEN REMOTELY INTERESTING –
IT'S HARDER TO SEE PAST ANY CHARM OR STYLE AND SEE THE STRUCTURE
OF THE UNDERLYING MOVEMENT CLEARLY. EVEN ADDING AN EYEBALL
SEEMS TO CREATE CHARACTER AND THROW ONE OFF THE CHASE FOR THE
STRUCTURE. AND ITS THE STRUCTURE WE'RE AFTER HERE, ACTING and
PRETTY DRAWINGS OR DESIGNS CAN COME LATER.

WE CAN ALTER THE TIMING OF AN ARM SWING –
SAY WE MAKE THE ARMS SWING SLOWER THAN THE FEET ...

WE ANIMATE THE WALK ON 8's – TAKING 4 STEPS (PULLED APART)

PASS POS

1 5 9 13 17 21 25 29 33
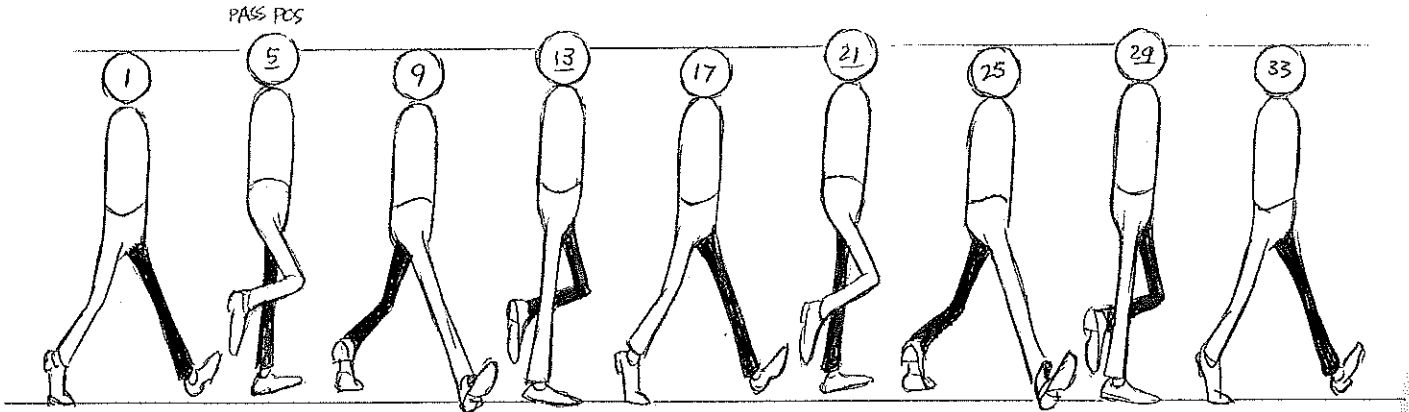
NOW WE'LL ADD THE ARMS BUT WE'LL PUT THEM ON 16's –

SO WITH THE FEET ON 8's AND THE ARMS ON 16's, THE ARM SWING TAKES TWICE
AS LONG AS THE FEET.

THE ARM EXTREMES ARE ON THE SAME DRAWINGS AS THE FEET BUT ON #17, THE
ARMS 'TWIN' UNNATURALLY ON THE SAME SIDE AS THE FEET

1 5 9 13 17 21 25 29 33

TWINS   TWINS
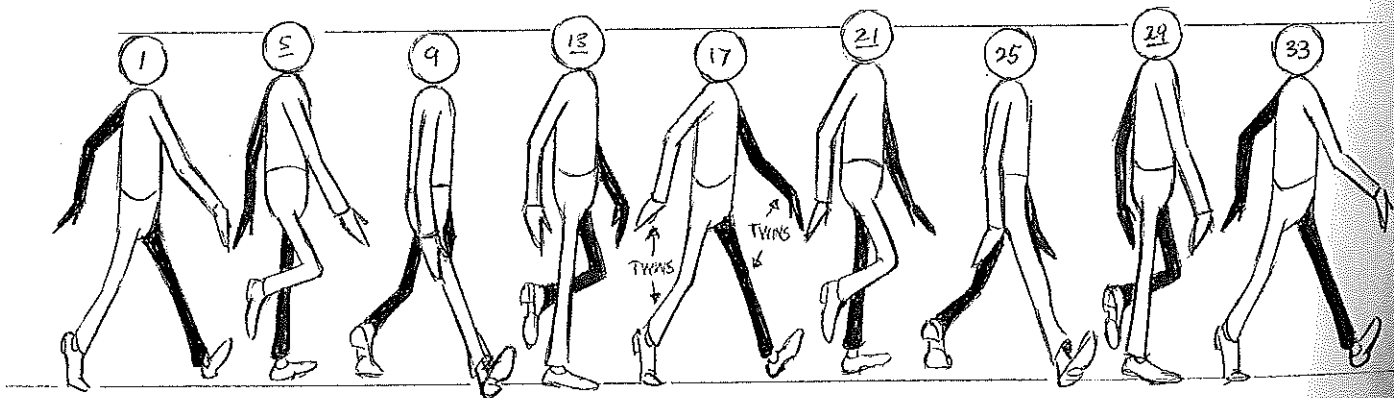
THIS SORT OF THING IS VERY EFFECTIVE ON A RUN!

154

NOW LET'S DO THE CONVERSE –

WE'LL HAVE THE ARMS PUMPING AWAY TWICE AS FAST AS THE LEGS.

WE'LL MAKE THE WALK ON 16's AND WORK THE ARMS ON 8's.

TAKE ONE STEP – (SPREAD FAR APART FOR CLARITY)

WE'LL NEED MORE INBETWEENS TO SHOW THIS·
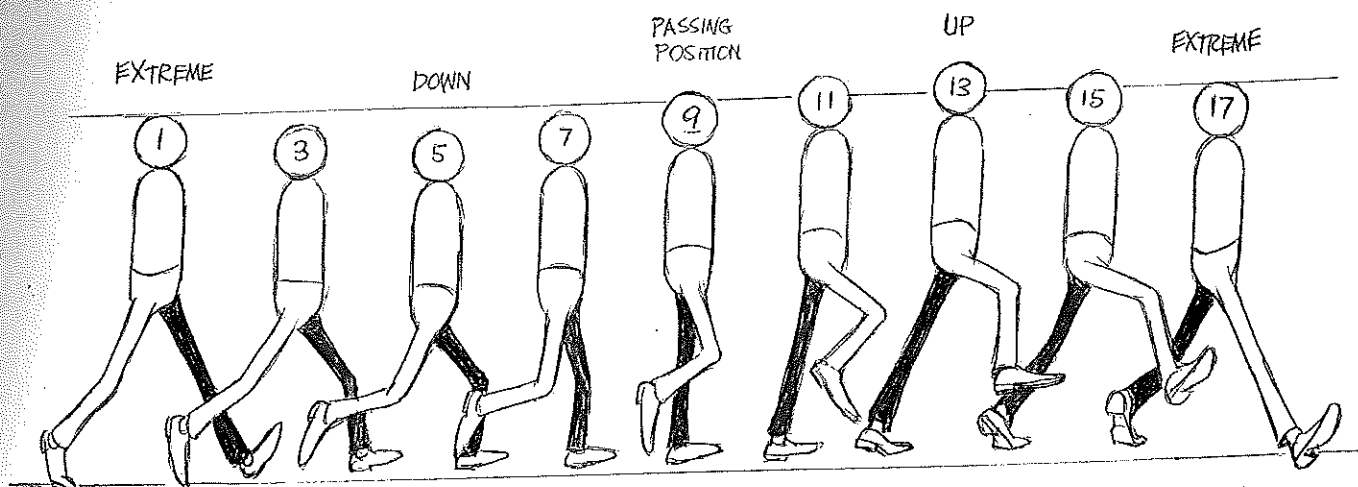
NOW ADD THE ARMS –
THE EXTREME POSITIONS ARE ON 1, 9, and 17.
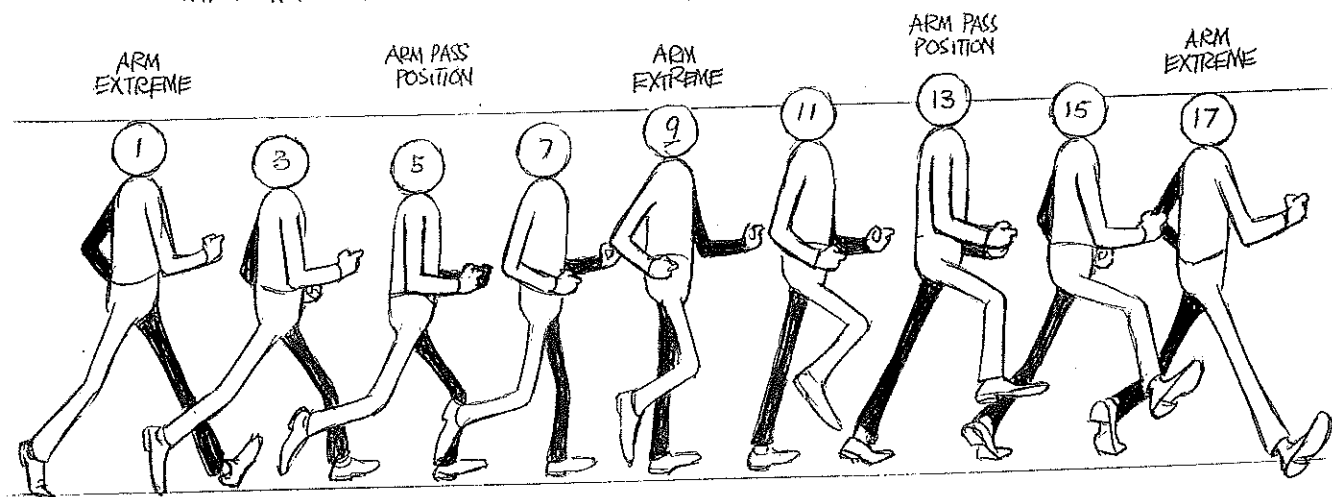
THIS NEEDS SINGLE INBETWEENS – MUST BE ON ONES BECAUSE OF SO MUCH ARM
ACTION IN A SHORT SPACE OF TIME. (THIS WON'T WORK ON A RUN, FOR THE SAME REASON)

COUNTERACTION

EXAGGERATED COUNTERACTION - AS IN A FAT MAN'S WALK

The STOMACH MASS MOVES UP AS THE BODY MASS MOVES DOWN

C

STOMACH MASS MOVES DOWN AS BODY MASS MOVES UP

B

STOMACH UP AS BODY DOWN

A
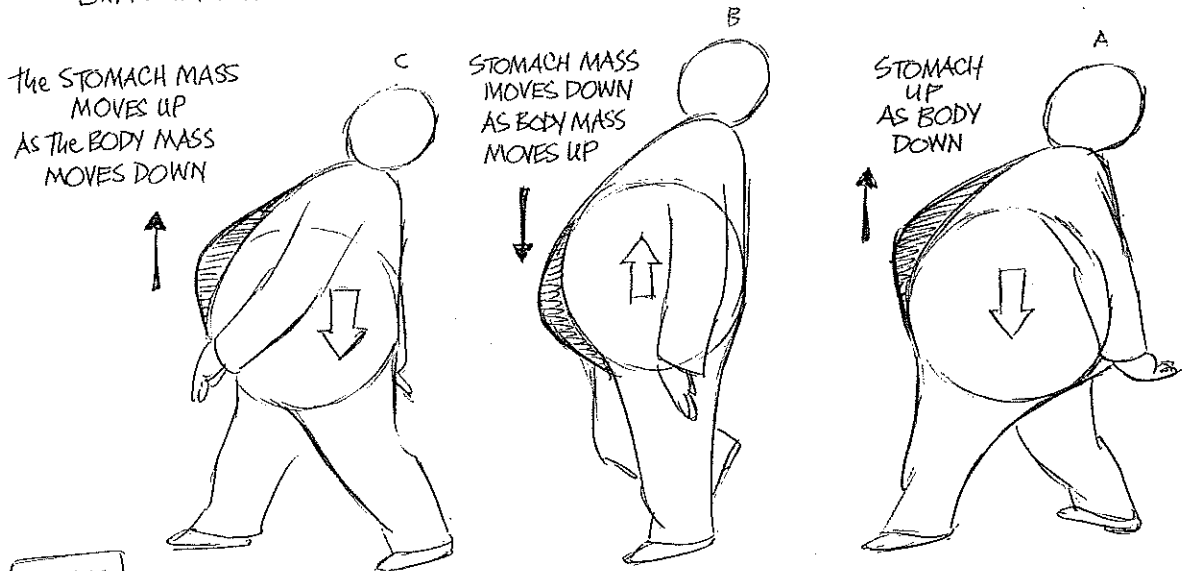
RULE

WHEN THE CHARACTER GOES UP - THE DRAPERY OR HAIR OR SOFT BITS GO DOWN.

AGAIN, EXAGGERATING - BUTTOCKS AND BREASTS AND HAIR COUNTER THE BODY UPS AND DOWNS -

C

B

A

DOWN   UP

DOWN   UP
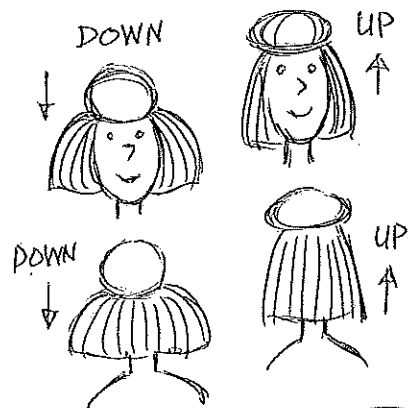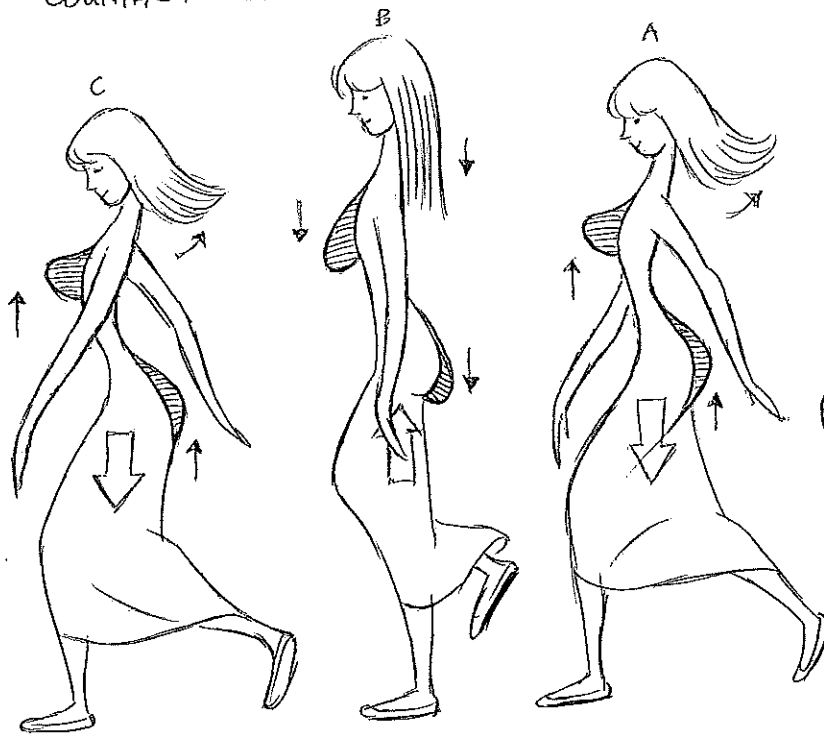
BUT RESTRAIN THESE ACTIONS JUST GIVE SOME MOVEMENT.

UP

DOWN

156
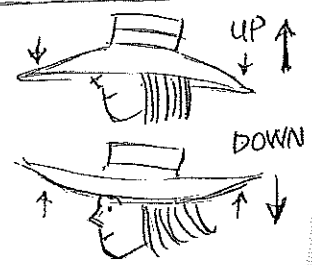
AS WE NEAR THE END OF THESE WALKS LET'S LOOK AT WHAT THE END IS DOING...

TAKE A WOMAN WALKING –

THE BUTTOCKS MOVE IN THE DIRECTION OF THE FORWARD FOOT –

THE BUTTOCKS WOULD NORMALLY BE CENTERED ON THE PASSING POSITIONS BUT (DELAY) THEM.

(SPREAD APART)

7

DELAY

13

19   DELAY

25
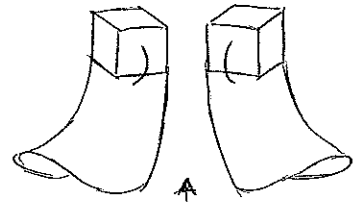
SKIRT BILLOWS LATER –
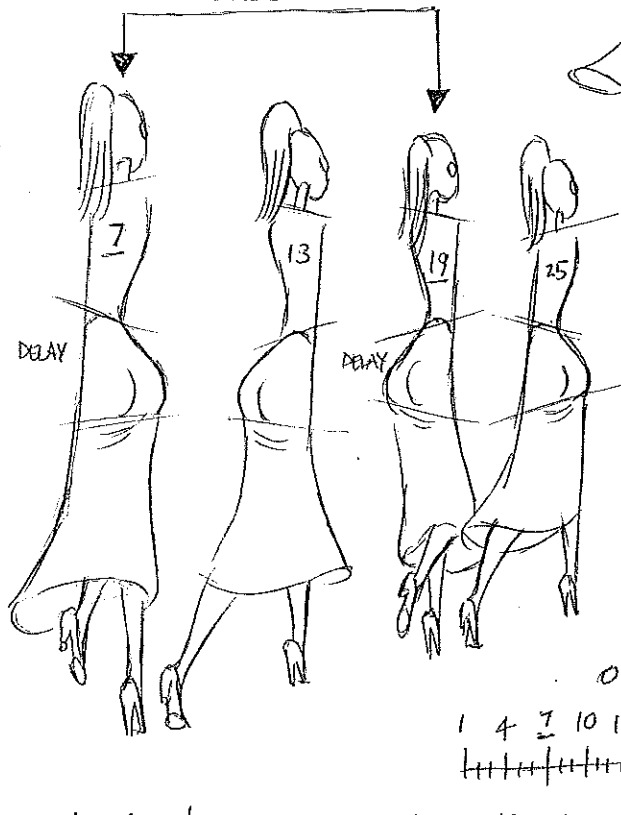
The MOVEMENT OF THE DRAPERY MOMENTARILY OPPOSES THE HIPS.

WHEN THE HIPS MOVE – THE DRAPERY MOVES THE OTHER WAY.

(DO THE HAIR LATER OR LAST)

ON 12'S

1   4   7   10   13   13   16   19   22   25
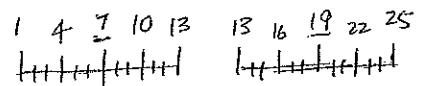
AGAIN, WE'RE SHOWING THESE THINGS IN EXAGGERATED FORM. IT'S ACCORDING TO TASTE HOW BROADLY OR HOW SUBTLY WE USE THESE DEVICES...

AND REMEMBERING THAT WOMEN TEND TO WALK ON A STRAIGHT LINE – 'TIGHTROPE WALKING.'

WHEN FOOT CROSSES OVER = MORE FEMININE WALK

'NORMALLY'

FASHION MODELS CROSS RIGHT OVER

AS DO STRIPPERS

AND BALLERINAS

157
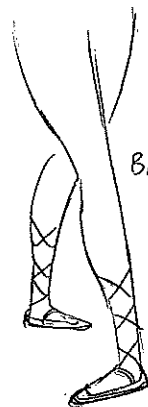
HERE'S A FORMULA FOR A BOUNCY WALK - ON 8'S

HIGHEST ON THE CONTACT	STAYS DOWN	DOWN ON THE PASSING POSITION	GOING DOWN	HIGHEST ON THE CONTACT
9	7	5	3	1
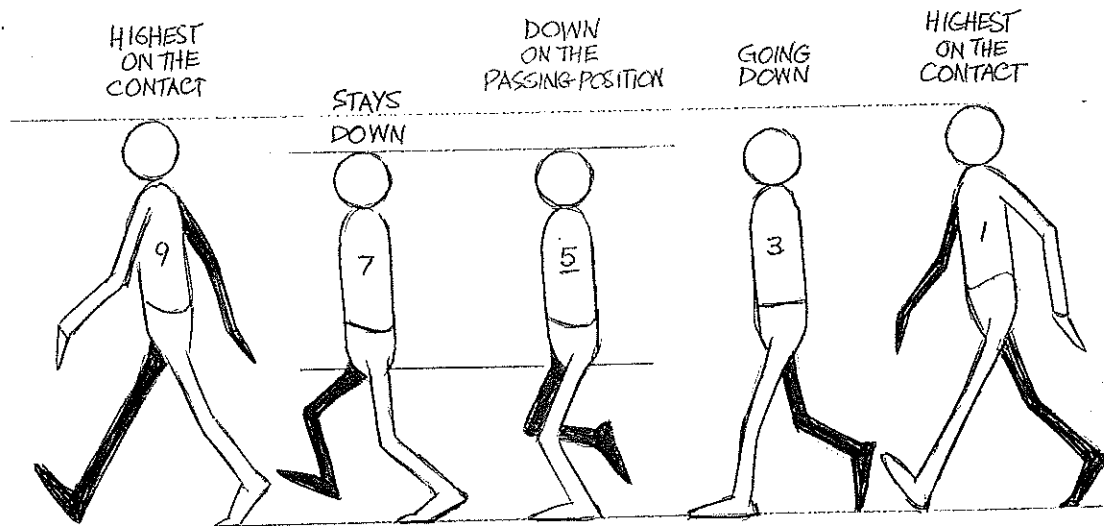
THE REST ARE STRAIGHT INBETWEENS

IN the 50's WHEN THEY SWUNG RIGHT AWAY FROM 'NATURALISM' THEY INVENTED SOME CHARMING WALKS ESPECIALLY WITH CHILDREN. THEY OFTEN DID THIS - THE CHARACTER WOULD TAKE A STEP - THEN POP UP IN The AIR FOR 4 TO 6 FRAMES OR SO, THEN CLICK DOWN AGAIN and TAKE ANOTHER STEP.

CONTACT 1	5	PASS POS (NO UP OR DOWN) 7	9	CONTACT 11	POPS UP	CLICKS DOWN	PASS POS.
HOLD FOR 4 FRAMES	2 FR.	2 FR.	2 FR.	HOLD FOR 4 FRAMES	HOLD FOR 4 FRAMES	2 FR.	2 FR.

CONTACT	POPS UP		PASS POS		CONTACT	THEY MIGHT KEEP GOING FOR 2 OR 3 MORE STEPS THEN POP HER UP AGAIN AT RANDOM
2 FR.	HOLD FOR 4 FRAMES	HOLD FOR 6 FRAMES	2 FR.	2 FR.	2 FR.	HOLD FOR 4 FRAMES
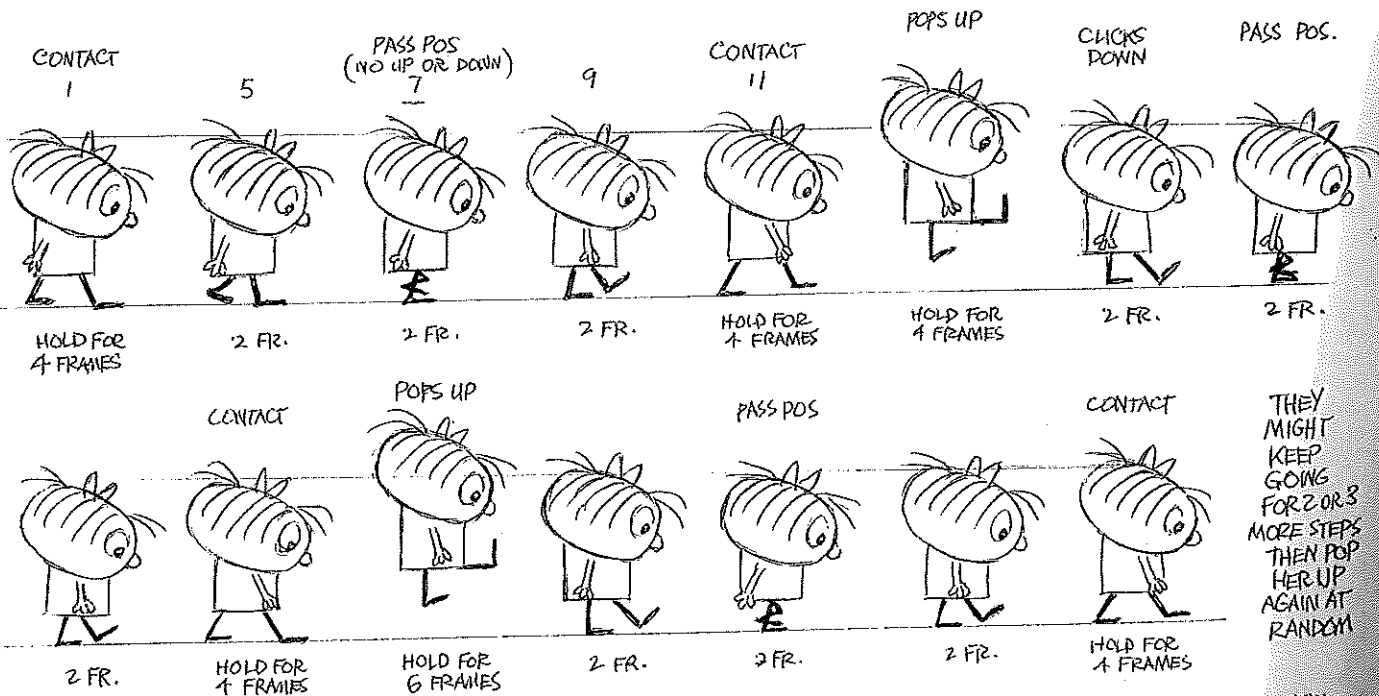
THE CHARM OF THIS IS ITS 'STYLISED STIFFNESS'. INVENTIVE THOUGH IT IS, IT'S HARD TO EXTEND ON THIS APPROACH. IF WE DON'T STRETCH AND OVERLAP AND DELAY PARTS, THINGS JUST LOOK LIKE A PIECE OF PASTEBOARD OR A PAPER CUT-OUT MOVING AROUND.

HERE'S A BOXER'S WALK WITH the HEAD FLOATING LEVEL and the BUTT and PELVIS ACTIVELY MOVING UP and DOWN and FROM SIDE TO SIDE AS the MAIN FEATURE. The BUTT ACTION GIVES IT the WEIGHT. BUT JUST TO COMPLICATE THINGS WE'VE MADE the EXTREMES WITH WHAT WOULD NORMALLY BE OUR PASSING POSITION — and the 'CONTACT' IS NOW the PASSING POSITION. OF COURSE THERE ARE NO RULES. WE CAN BUILD FROM ANY POINT.

EXTREME   PASSING POSITION   EXTREME

(ON 8's) ①   ⑤   ⑨

SIDE   BUTT HIGHER   TO SIDE

                           FOOT LANDS ON TOES
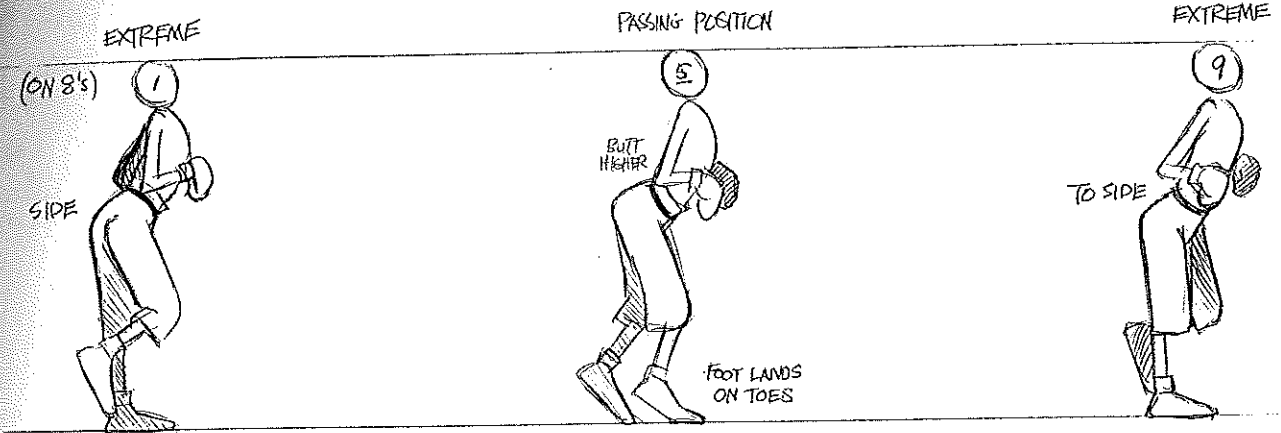
NOW WE MAKE ANOTHER EXTREME HERE WITH THE BUTT AT ITS HIGHEST.

THEN WE MAKE ANOTHER EXTREME HERE WITH THE BUTT AT ITS LOWEST AND THE ARMS AT THEIR WIDEST.

①   ④   ⑤   ⑧   ⑨

      BUTT HIGHEST   BUTT LOWEST
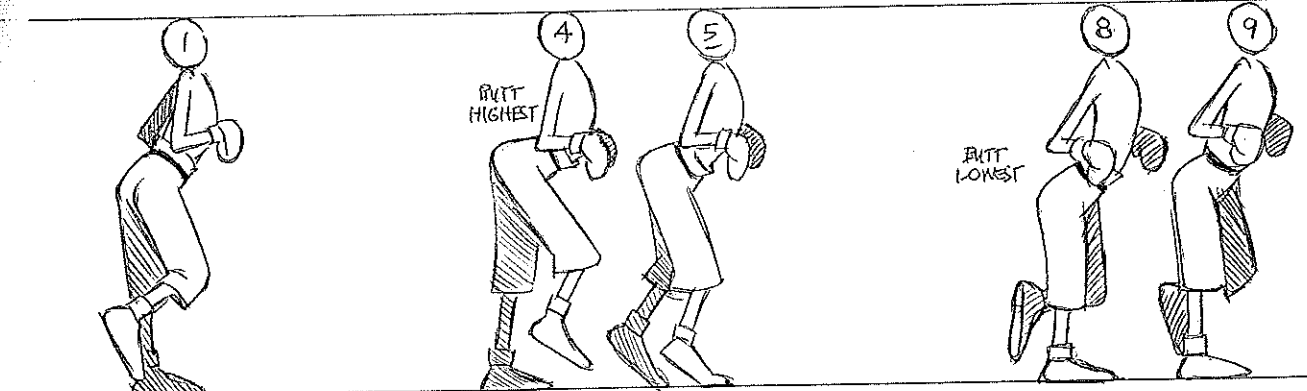
NOW THAT WE HAVE the HIGHS and LOWS WE JOIN IT ALL UP and EFFICIENTLY GET the RESULT WE WANT.

①   ②   ③   ④   ⑤   ⑥   ⑦   ⑧   ⑨

1 2 3 4   5   6 7 8

159
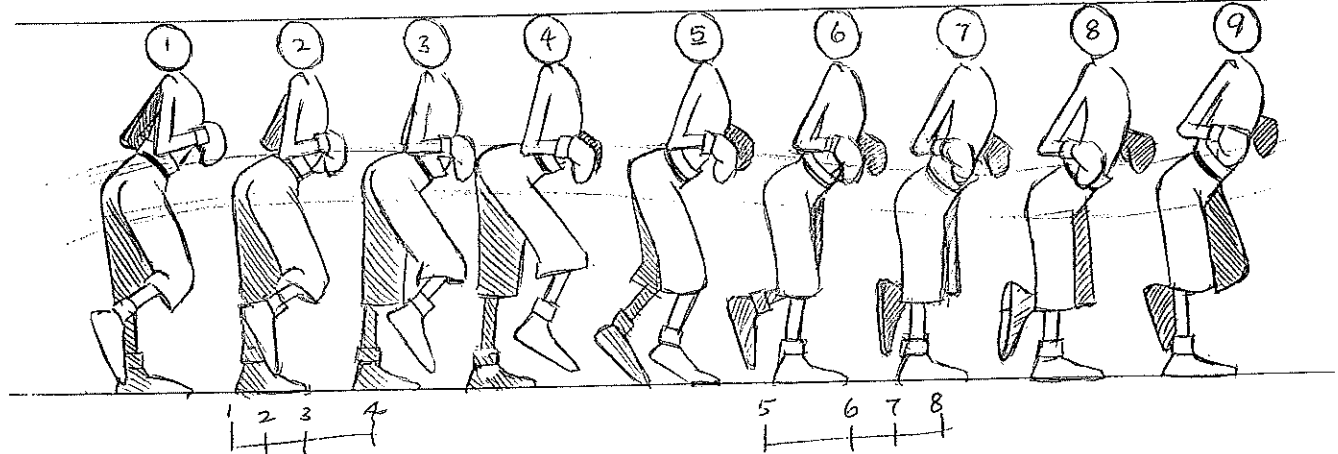
HERE'S A TECHNICAL AID FOR PLANNING A WALK IN PERSPECTIVE (IF WE WANT TO BE TECHNICAL ABOUT IT)

HORIZON   VANISHING POINT   HORIZON
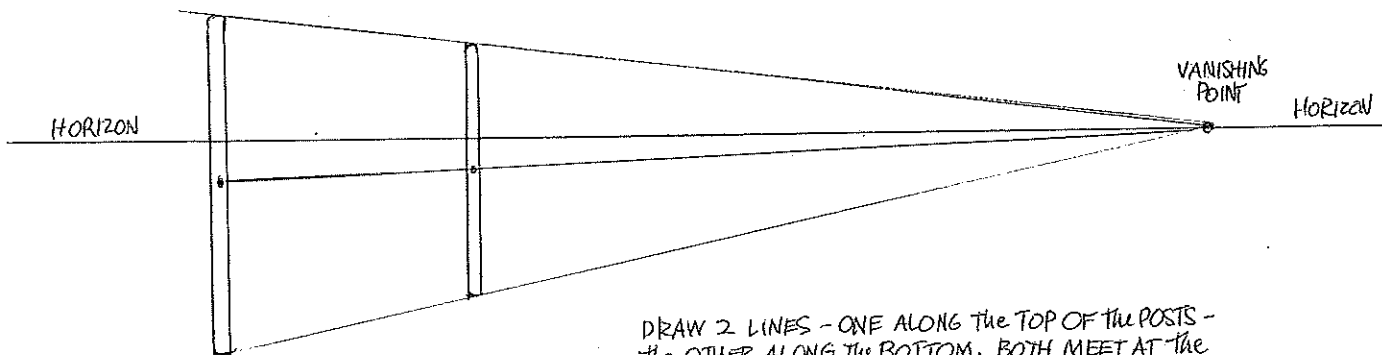
DRAW 2 LINES - ONE ALONG THE TOP OF THE POSTS -
THE OTHER ALONG THE BOTTOM. BOTH MEET AT THE
VANISHING POINT.

THEN DRAW ANOTHER LINE (BLUE) HALF-WAY BETWEEN

ETC   V.P.
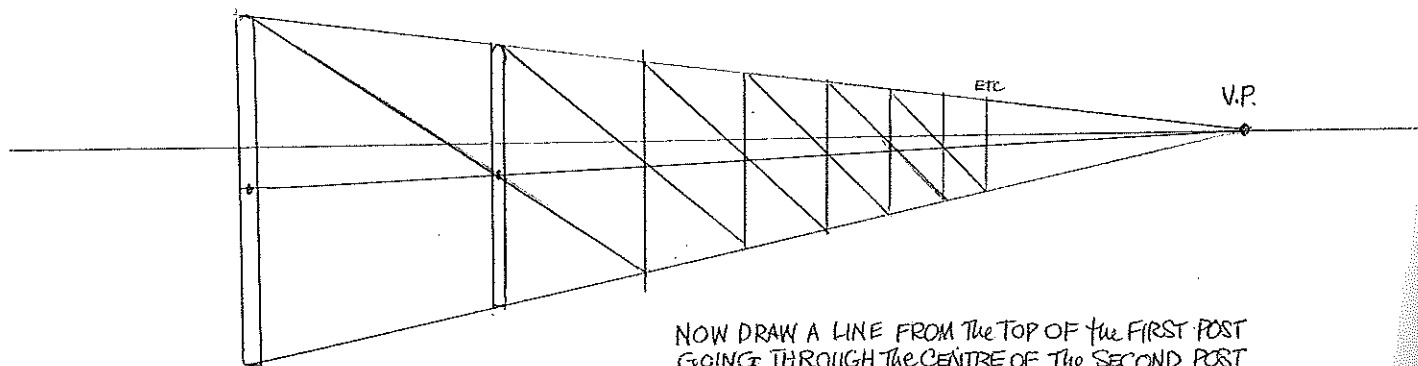
NOW DRAW A LINE FROM THE TOP OF THE FIRST POST
GOING THROUGH THE CENTRE OF THE SECOND POST
TO THE LOWER LINE.

NOW WE KNOW WHERE TO PUT THE THIRD POST — AND ALL THE REST.

RIGHT PASS LEFT PASS RIGHT   RIGHT   RIGHT   R   R   R   ETC
       POS   POS
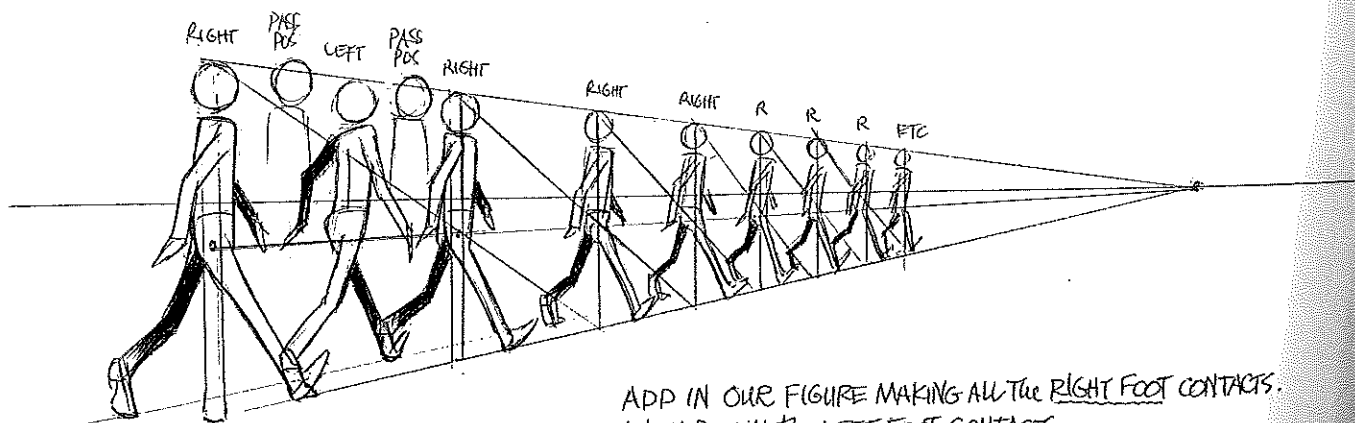
ADD IN OUR FIGURE MAKING ALL THE RIGHT FOOT CONTACTS.
THEN PUT IN THE LEFT FOOT CONTACTS.
THEN ADD PASSING POSITIONS etc. THE USUAL ROUTINE...

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HAVING GONE THROUGH ALL THIS WALK BUILDING and FORMULAS etc. WE END UP AT
The MAIN ISSUE = NO TWO CHARACTERS WALK The SAME. ALL WE CAN DO IS GENERALISE—

A SPRITELY GIRL WALKS LIKE THIS—

AND AN OLDER WOMAN MAYBE LIKE THIS—

IF PREGNANT, LIKE THIS— 'MOTHER'S PRIDE' and VERY CAREFUL

A FAT MAN LEANS BACK SIMILARLY GLIDES DELICATELY LIKE A DANCER—
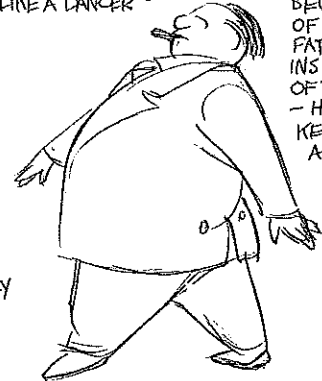
BECAUSE OF The FAT ON INSIDE OF The LEGS — HAS TO KEEP LEGS APART

LEGS APART SLIGHTLY

SHE'S BALANCING The WEIGHT— SO'S HE.
THE WEIGHT HAS TO BALANCE — EXCEPT FOR The BRIEF
INSTANT WHEN WE STOP OURSELVES FALLING OVER—
WE REGAIN OUR BALANCE.

A DRUNK HAS A PROBLEM KEEPING IN BALANCE— The HEAD IS USUALLY STATIONARY. IT'S TRYING TO CONVINCE US IT ISN'T DRUNK. NEVER STANDS STILL— ALWAYS MOVING A LITTLE BIT.
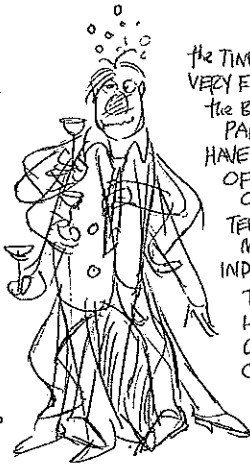
The TIMING IS VERY ERRATIC. The BODY PARTS HAVE LIVES OF THEIR OWN and TEND TO MOVE INDEPENDENTLY. THEY'VE LOST The CENTRAL CONTROL.

ANGRY WALK— ALWAYS HIT FOOT THROUGH and DOWN FAST!

VIOLENT ACCENT DOWN!

SAILORS WALK WHOLE BODY ROCKS SIDE TO SIDE— (NICE TO DELAY HEAD)

CHILDREN'S WALK—
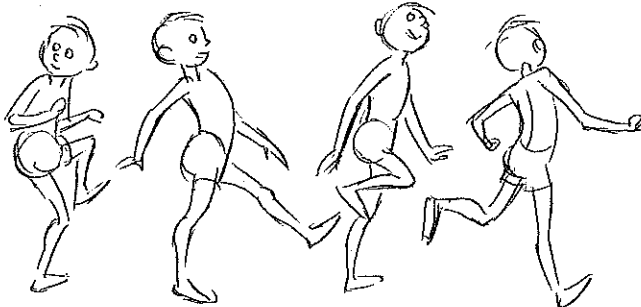
OVEREXAGGERATED FOOT ACTION — LIFT LEGS HIGHER THAN ADULTS

BABIES ARE CONSTANTLY OFF BALANCE

FEET SPREAD APART

TIMING IS SO IMPORTANT IN WALKS
KEN HARRIS SAID, "BASE WALKS ON 12'S -
(AS DID MILT KAHL) THEN EVERYTHING IS JUST
SO MUCH FASTER OR IS
SO MUCH SLOWER THAN 12."
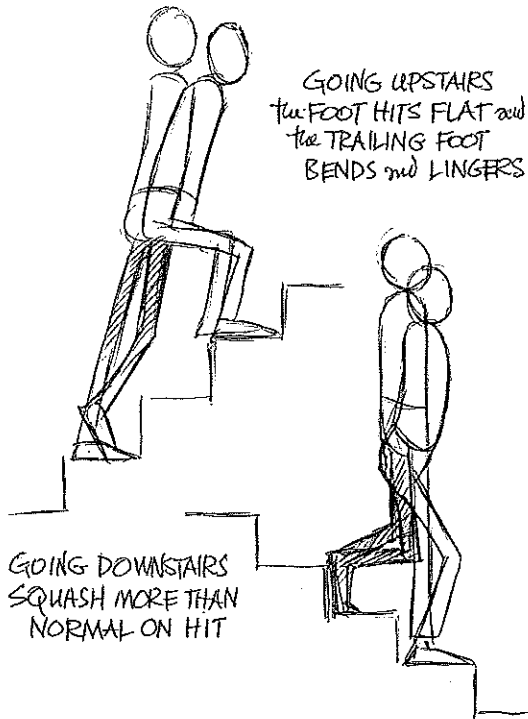
GOING UPSTAIRS
the FOOT HITS FLAT and
the TRAILING FOOT
BENDS and LINGERS

GOING DOWNSTAIRS
SQUASH MORE THAN
NORMAL ON HIT

the SEXUAL
LOOK-AT-ME
TYPES

the
PELVISES
THRUST
SLIGHTLY
FORWARD
and the
TOP of the
BODY HAS
TO ROTATE
DUCKLIKE
OVER the
TOP OF
the HIPS-

- WADDLING
SIDE TO SIDE
TO BALANCE
the FORWARD
PELVIS.

AGAIN, IT'S NOT JUST HOW THEY LOOK -
ITS HOW IS the PERSON FEELING?

SAD
LONELY
HAPPY
THOUGHTFUL
DRUNK
SPRIGHTLY
OLD
YOUNG
ADDLED
SURPRISED
HOPEFUL
CONFIDENT
EMPATHETIC
CONCEITED
NERVOUS
I LL
ANGRY
LAME
INHIBITED
MILITARISTIC
DEPRESSED
JOYOUS
SHY?

TAKE A DRUNK FOR EXAMPLE -
THERE ARE SO MANY DIFFERENT
KINDS -

The SILLY DRUNK
The LASCIVIOUS DRUNK
The SELF-PITYING DRUNK
The EXPANSIVE, HAPPY DRUNK
The OUT-OF-CONTROL ATHLETIC DRUNK
The OVERLY GRACIOUS POLITE DRUNK
The VERY DIGNIFIED DRUNK
The VICAR (I SAW A VICAR WALK INTO A WALL)
The INHIBITED SOCIETY MATRON
The FIGHTING DRUNK
The SENTIMENTALIST
The FIRST TIME DRUNK
etc. etc.

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TO SUM UP:

WAYS TO GET VITALITY IN A WALK

> (The RECIPE)
>
> 1. LEAN the BODY
>
> 2. USE STRAIGHT LEGS ON CONTACTS and PUSH OFF POSITIONS
>   (GOING FROM STRAIGHT TO BENT OR BENT TO STRAIGHT)
>
> 3. TWIST the BODY — TILT the SHOULDERS and HIPS
>   HAVE the SHOULDERS OPPOSE the HIPS
>   SWIVEL the HIPS
>
> 4. FLOP the KNEE IN OR OUT
>
> 5. TILT the BELT LINE FAVOURING the LEG THAT'S LOWEST
>
> 6. FLOP the FEET
>
> 7. DELAY the FEET AND TOE LEAVING the GROUND
>   UNTIL the VERY LAST INSTANT
>
> 8. TIP the HEAD OR MAKE IT GO BACK and FORTH
>
> 9. DELAY PARTS   DON'T HAVE EVERYTHING WORKING
>   TOGETHER AT the SAME TIME.
>
> 10. USE COUNTERACTION - FAT, BUTTOCKS, BREASTS,
>   DELAYED CLOTHES, PANT LEGS, HAIR etc.
>
> 11. BREAK the JOINTS
>
> 12. MORE UPS and DOWNS (FOR WEIGHT)
>
> 13. USE DIFFERENT TIMINGS ON LEGS VERSUS ARMS VERSUS
>   HEAD VERSUS BODY etc.
>
> 14. TWIST the FEET - TAKE THEM OFF the PARALLEL.
>
> 15. IF WE TAKE A NORMAL CLICHÉD ACTION and ALTER
>   ONLY ONE TINY PART - WE GET SOMETHING DIFFERENT!

I WANT TO CLOSE OFF ON WALKS WITH THIS EXAMPLE OF A 'MILT KAHL TYPE' STRUT.

IN HIS CAREER HE ANIMATED MANY ENERGETIC SUPEROPTIMISTIC 'CAN DO' WALKS. I'VE ADAPTED
and COMBINED SEVERAL OF THESE INTO A COMPOSITE ONE (USING A GENERIC FIGURE - NOT A CHARACTER)
- A 'MAQUETTE' TO SHOW the WORK PROCESS OF A MASTER. IT'S CERTAINLY NOT TO PROVIDE YET
ANOTHER FORMULA, BUT AS AN INSIGHT INTO HOW A MASTER WORKS and THINKS - HOW HE STARTS
ON A SIMPLE BASIS WITH the CONTACTS and LOADS IT WITH DEPTH and INTEREST AS HE BUILDS.

AND IT'S FULL OF The STUFF WE'VE BEEN TALKING ABOUT.

FIRST HE MAKES
The CONTACTS -
(WE'LL TAKE 2 STEPS)
- ON 12's

1   13   25
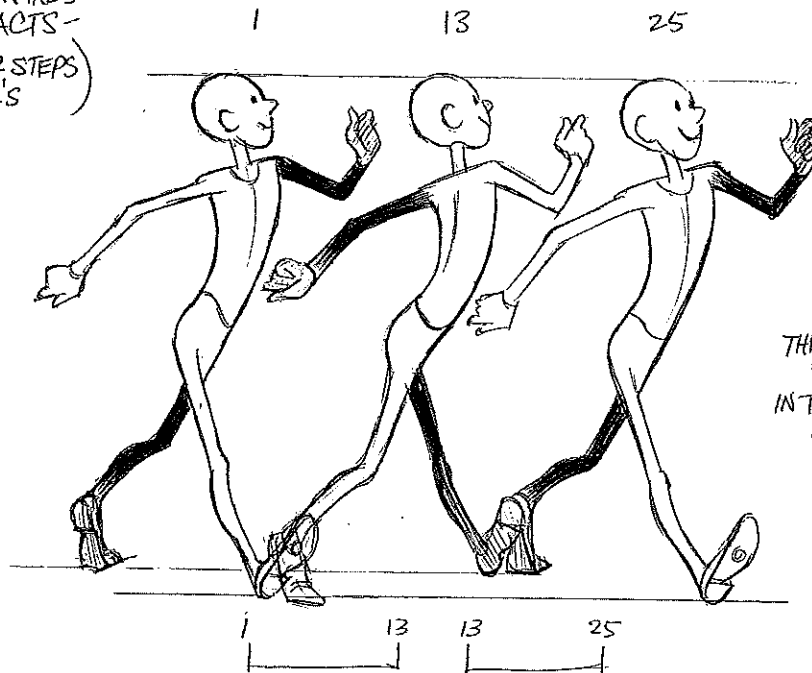
RIGHT AWAY
THERE'S LOTS OF
VITALITY
IN The CONTACT
POSITIONS

1   13   13   25

LET'S SPREAD IT OUT
SO IT'S NICE and CLEAR -

1   HEAD
      SIDE
      ON

SHOULDERS
OPPOSE
HIPS

BELT LINE
BENDS DOWN
WITH
LOWEST LEG

FEET TWIST
AND ARE OFF
The PARALLEL

13   HEAD SLIGHTLY
      LEFT

BACK ARM
IS DOWN

FRONT ARM
IS UP

BODY
TWISTS
SIDEWAYS

25   HEAD
      SLIGHTLY
      RIGHT

AND
TWISTS
BACK

164
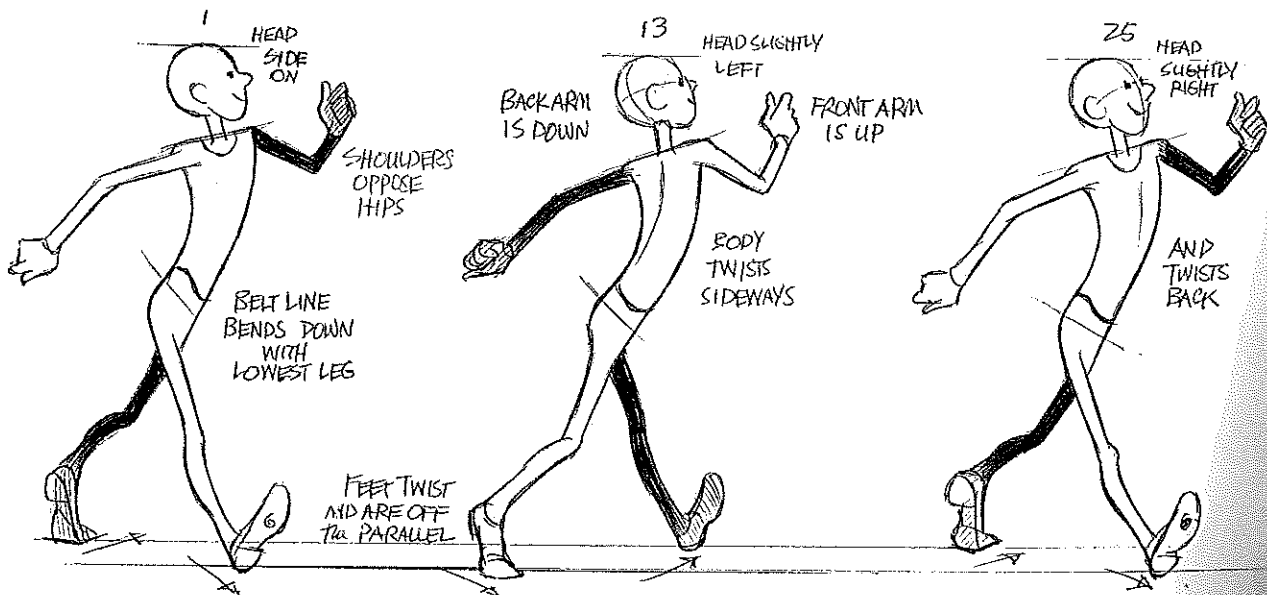
THE PASSING POSITIONS GO IN NEXT -

PASS POS   PASS POS.

7   HEAD   SHOULDER   SHOULDER   19   HEAD TURNS
     TILTS   ANGLE   ANGLE   TOWARDS US
1   FORWARD   REVERSES   INCREASES   25
                 and   AND
                INCREASES 13   REVERSES

                    BROKEN   BROKEN
                    JOINT   JOINT

          HAND   LOOK AT   HAND
          DRAG   THE BIG FAST   DRAG
                    HAND   ARM SWING
                    DRAG   THRO' THE
                                  MIDDLE!

        | 7   13   13   19   25
        |____|____| |____|____|
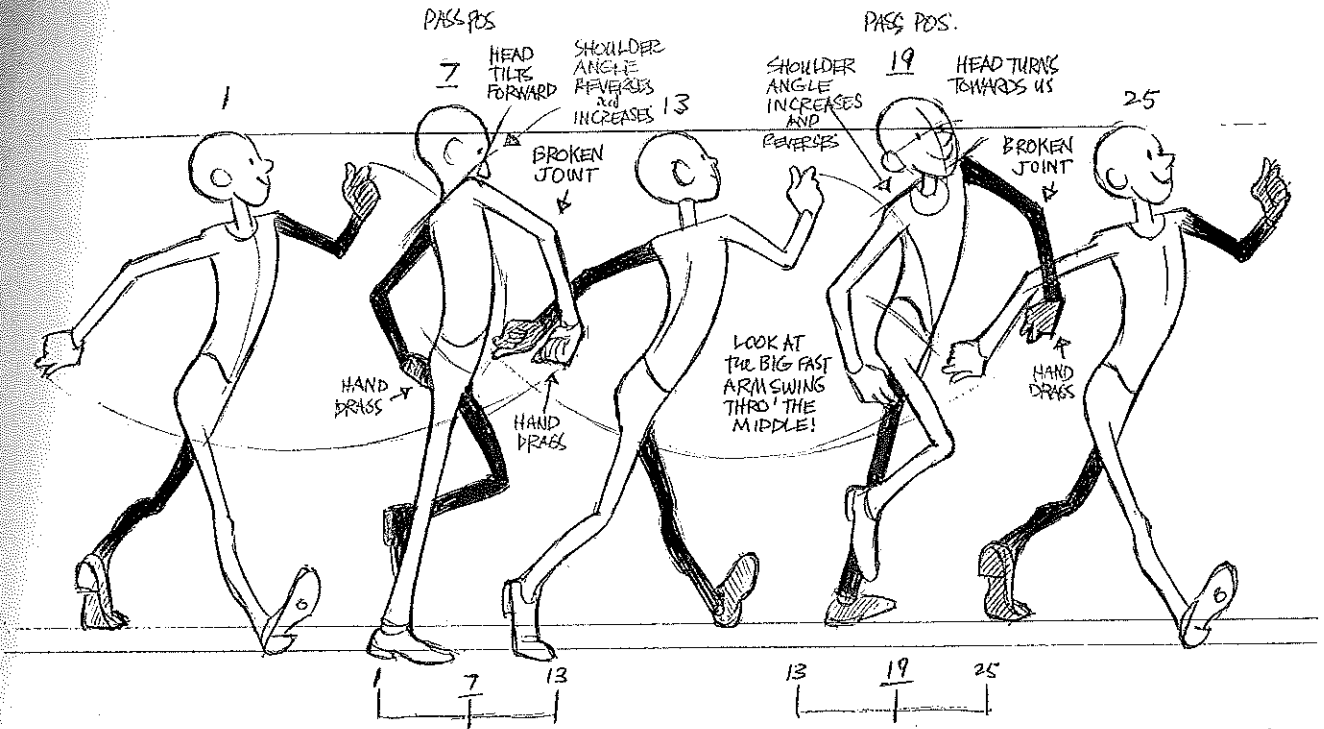
(THIS WOULD ALREADY MAKE A GREAT WALK AS IT IS - WITHOUT EVEN ADDING IN MORE HIGHS OR LOWS!)

NOW WE'LL ADD IN THE LOWS - THE DOWN POSITIONS.

1   4   7   13   16   19   25
       DOWN   DOWN

DELAY   DELAY
ARM   ARM +
and   DRAG
DRAG   HAND
HAND

   1   4   7   13   13 16 19   25
   |___|___|___| |___|___|___|

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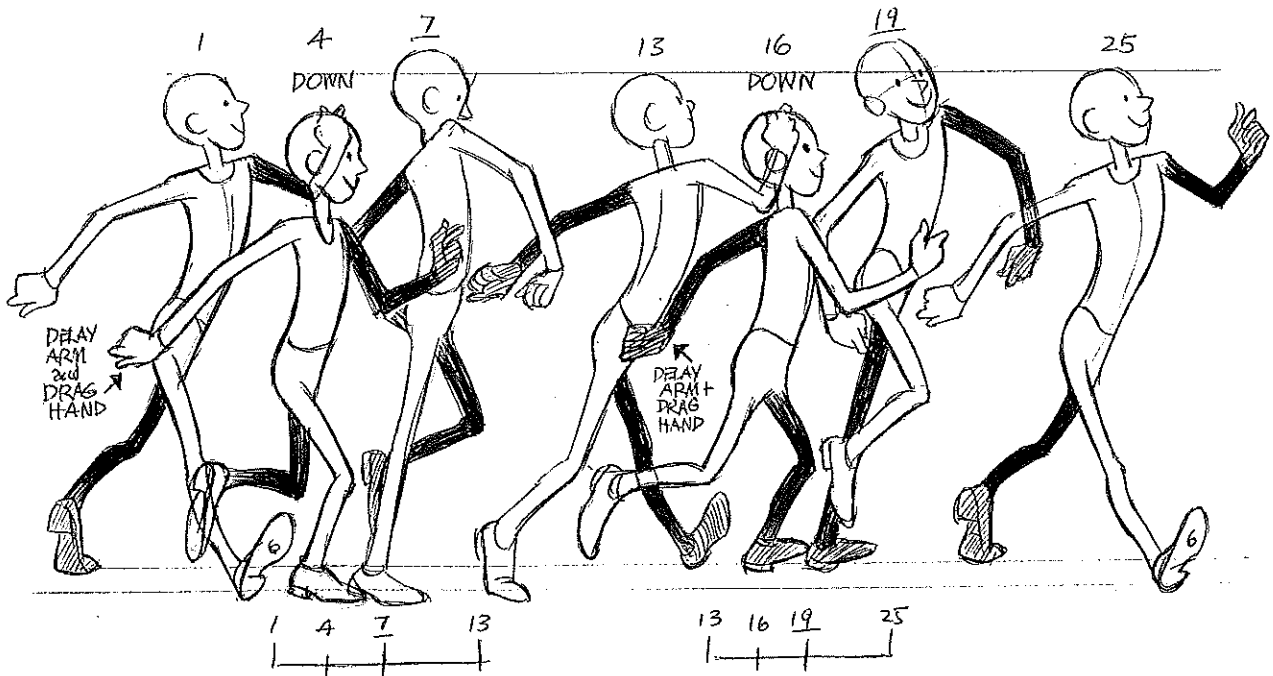
NOW WE'LL PUT IN THE UP POSITIONS –
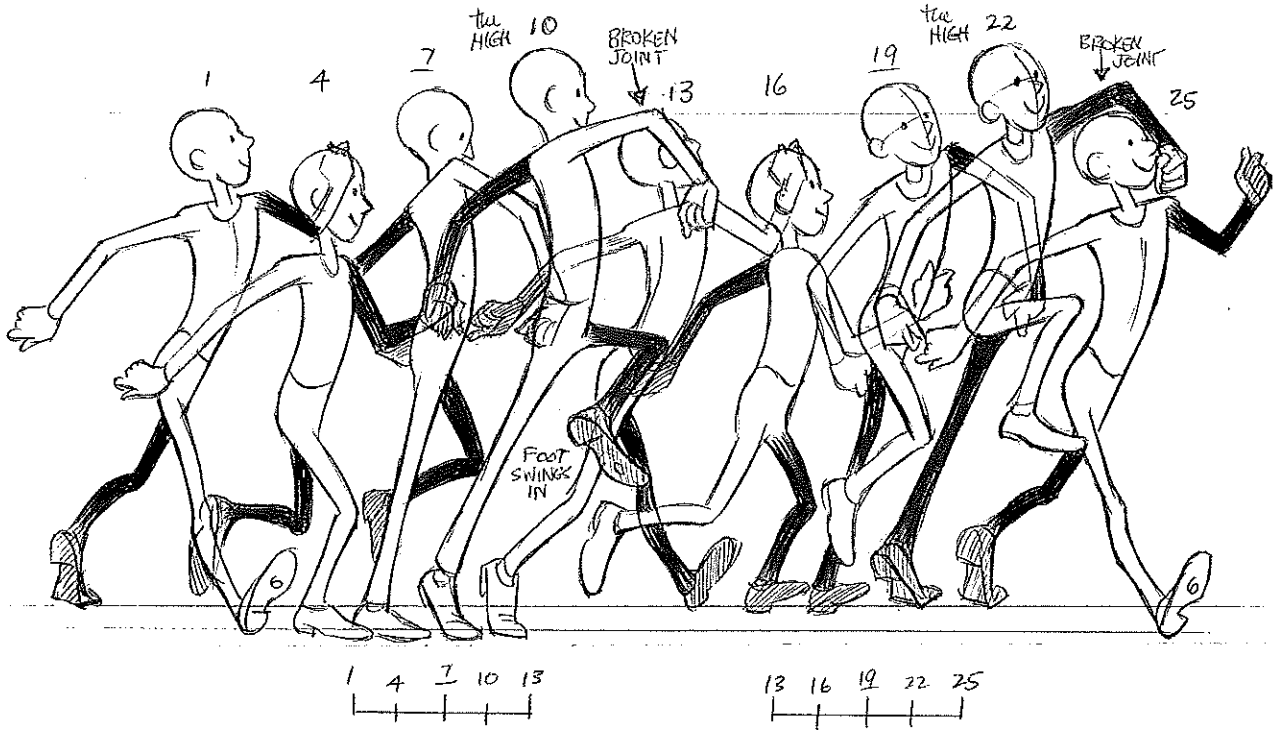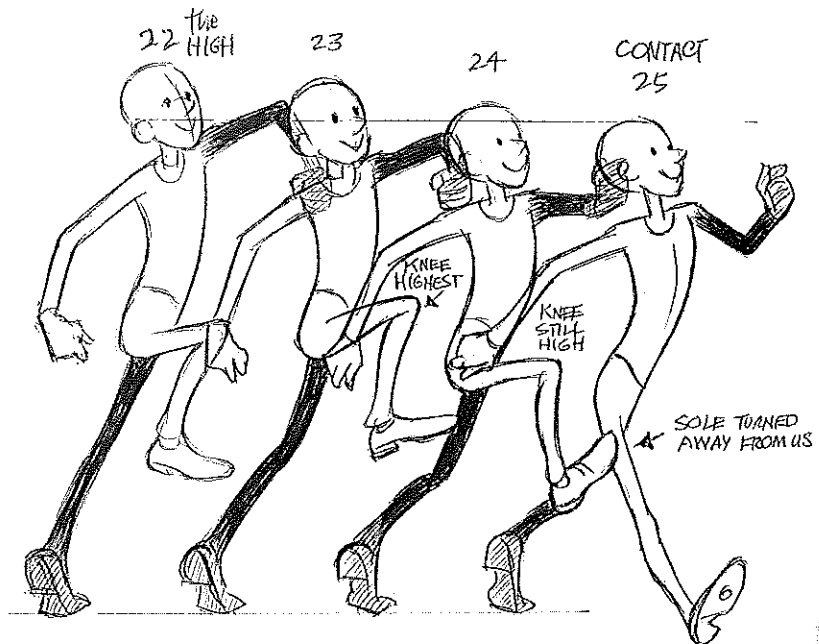

THEN ADD IN THE
IN BETWEENS (ON THIRDS)
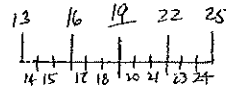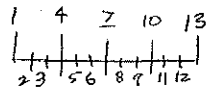
AND YOU CAN BET THEY'RE
GOING TO BE THOUGHTFUL
IN BETWEENS –
NOT MECHANICAL ONES.

EXAMPLE:

WITH THE LAST 2 INBTWNS
THE RIGHT LEG IS NOT
JUST INBETWEENED.
THE REST IS.

NOW THE WHOLE THING
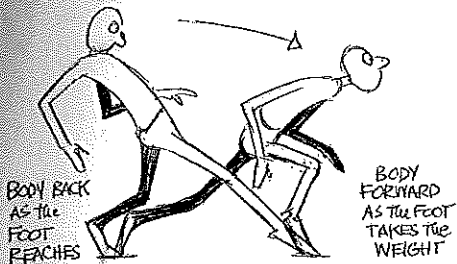IS PACKED WITH VITALITY
and 'CHANGE'!

"SOPHISTICATED USE
OF THE BASICS."

SNEAKS

THERE ARE 3 DEFINITE CATEGORIES OF SNEAKS:

① The TRADITIONAL SNEAK   ② The BACKWARDS SNEAK   ③ The TIP TOE SNEAK

BODY BACK AS the FOOT REACHES

BODY FORWARD AS The FOOT TAKES The WEIGHT

BODY FORWARD AS The FOOT REACHES BACK

THEN BODY FOLLOWS

SORT OF A CONTAINED POSE

COMING DOWN ON The TOES

AVERAGE VERSION 24 FRAMES for EACH STEP.
FAST VERSION· 16 FRAMES PER STEP.
SLOW VERSION 32 FRAMES FOR EACH STEP.
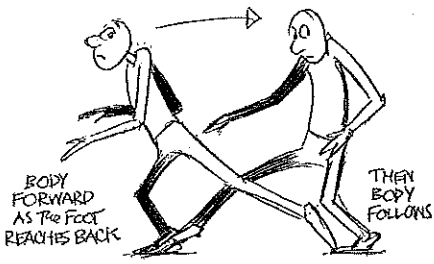
EXPRESSES FEAR OR MISCHIEF
- MORE OR LESS OPPOSITE
TO A FORWARDS SNEAK.
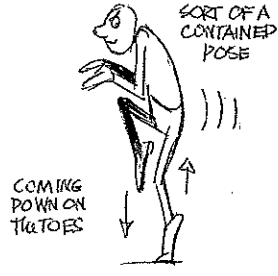
ON TOES and PLAYFUL-
SURE OF HIM/HERSELF
10 FRAMES - 12, 13, 14 FRAMES.
WHATEVER WE WANT
REALLY FAST ONES ON 3's or 4's

A TRADITIONAL SNEAK HAS A VERY INTERESTING CONSTRUCTION.

THE MAIN THINGS ARE -

Ⓐ The BODY GOES BACK and FORTH.
The BODY GOES BACK WHEN The FOOT
GOES UP. The ARMS ARE USED FOR BALANCE.

Ⓑ WHEN The FOOT REACHES and CONTACTS
The GROUND, The BODY IS STILL BACK and
the HEAD IS HELD BACK, DELAYED JUST A LITTLE BIT.

Ⓒ AFTER The FOOT CONTACTS The GROUND
The BODY FOLLOWS - GOING FORWARD
AS The FOOT TAKES The WEIGHT.
NEXT The BODY WILL GO BACK (AS Ⓐ)
AS The OTHER FOOT GOES FORWARD.

Ⓐ   Ⓑ   Ⓒ
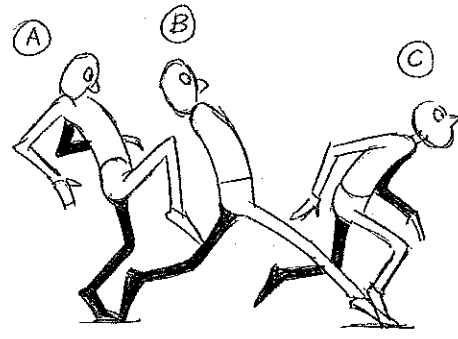
AS WITH A WALK THERE ARE
3 IMPORTANT DRAWINGS -
The 2 CONTACTS
AND A VERY INTERESTING
PASSING POSITION..

CONTACT   CONTACT   PASSING POSITION

167
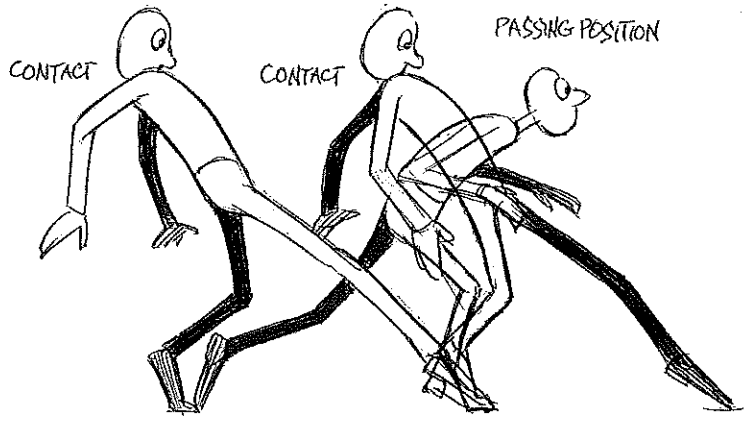
KEN HARRIS SHOWED US THIS FORMULA FOR A SLOW SNEAK:

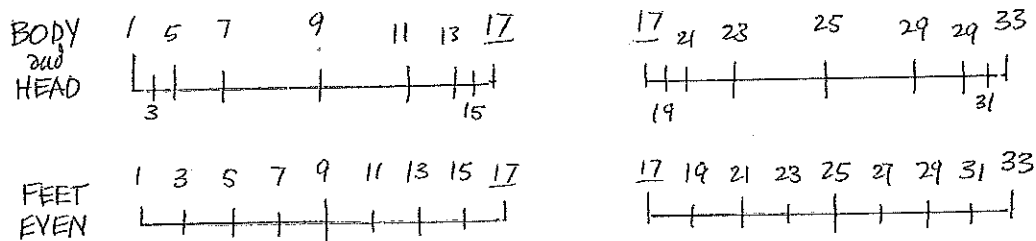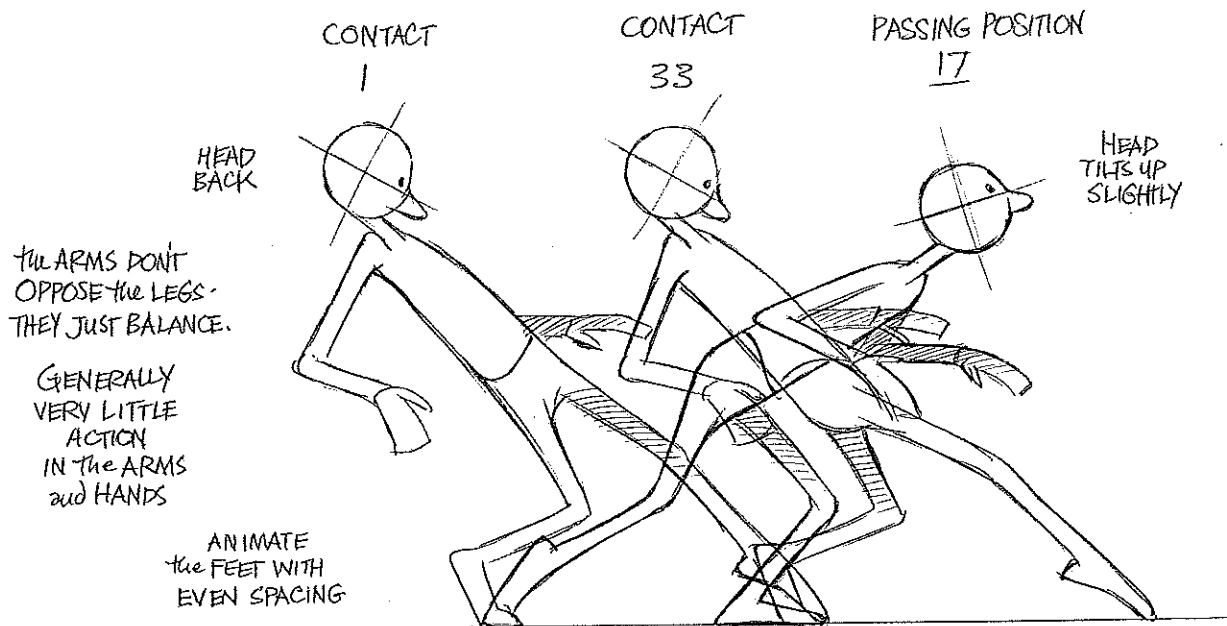IT TAKES 2 FEET = 32 FRAMES = 1⅓ SECONDS FOR EACH STEP.
ON TWO'S — (BUT OF COURSE IT'LL BE EVEN BETTER ADDING INBETWEENS ON ONES)

CONTACT
1

CONTACT
33

PASSING POSITION
17

HEAD
BACK

HEAD
TILTS UP
SLIGHTLY

THE ARMS DON'T
OPPOSE THE LEGS.
THEY JUST BALANCE.

GENERALLY
VERY LITTLE
ACTION
IN THE ARMS
AND HANDS

ANIMATE
THE FEET WITH
EVEN SPACING

BODY AND HEAD	1	5	7	9	11	13	17

3   15

	17	21	23	25	29	29	33

19   31

FEET EVEN	1	3	5	7	9	11	13	15	17

	17	19	21	23	25	27	29	31	33

IT'S A GOOD EXAMPLE OF COUNTERACTION—
AS HE MOVES ALONG, THE HEAD GOES FORWARD AND THE HANDS GO BACK

THIS IS THE BASIS. IT WILL WORK NICELY JUST INBETWEENING THE 3 POSITIONS AS IS—
AND NOT ADDING ANY FANCY BITS OF INNER ACTION.

IF THE HANDS WERE OPEN
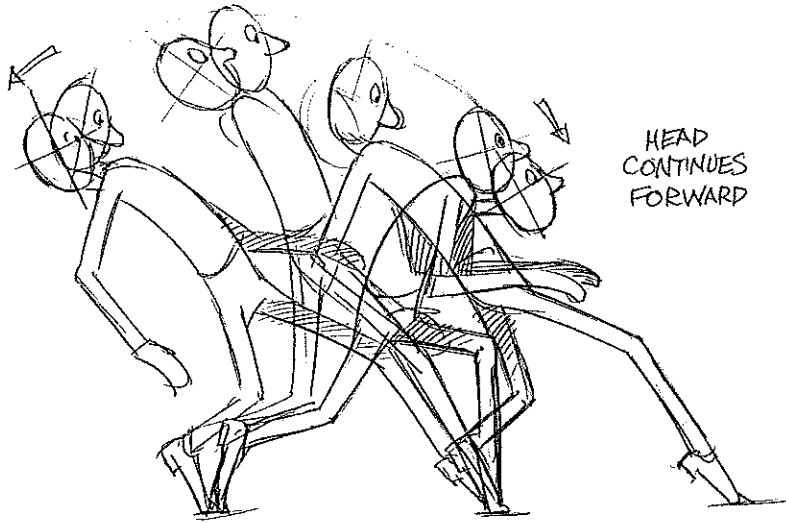IT WOULD LOOK FRIGHTENED.

OF COURSE WE CAN ADD ANYTHING
WE WANT WITHIN — BUT THIS DOES THE JOB
WITH JUST 3 DRAWINGS AND THE CHARTS.

WE COULD USE ARCS OR JUST STRAIGHT
MECHANICAL INBETWEENS. IT'LL WORK WELL.

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BUT OF COURSE, WE COULD DELAY PARTS—

CROSSOVER HEAD
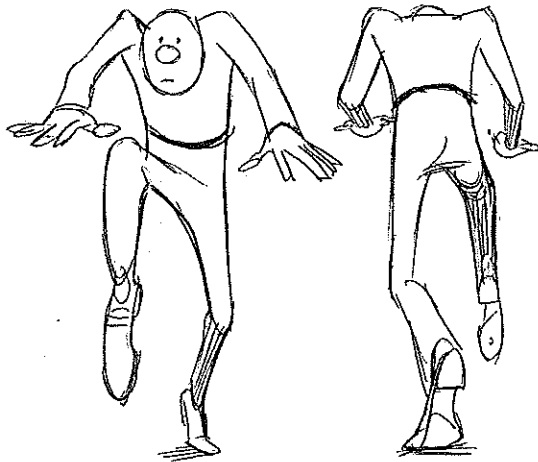BACK and LOOKING DOWN

HEAD IS
STILL GOING
BACK ON
START
POSITION

HEAD
CONTINUES
FORWARD

COULD STAY FULLY ON the TOES ALL the TIME TO ENHANCE the FEELING OF CAUTION—

TRY IT ON
FRONT VIEW—
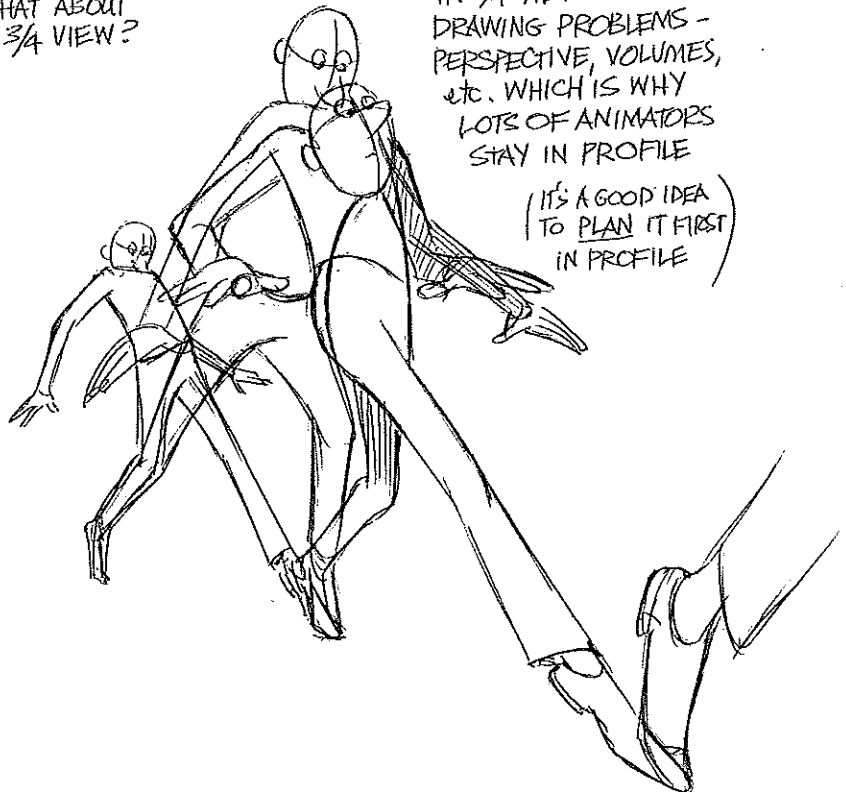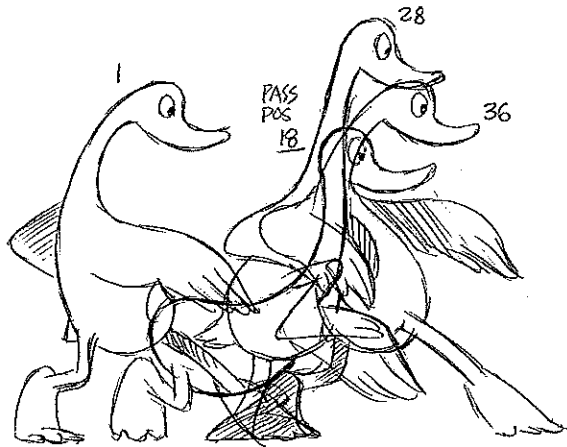
WAISTLINE SHOWS
WHAT'S HAPPENING—

WHAT ABOUT
A 3/4 VIEW?

IN 3/4 VIEW WE HIT
DRAWING PROBLEMS—
PERSPECTIVE, VOLUMES,
etc. WHICH IS WHY
LOTS OF ANIMATORS
STAY IN PROFILE

(IT'S A GOOD IDEA
TO PLAN IT FIRST
IN PROFILE)

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HERE'S AN ADAPTATION OF A BILL TYTLA SNEAK —
THERE ARE 4 PLANNING DRAWINGS. IT'S ON 36 FRAMES = 1½ SECONDS PER STEP.

28

1

PASS
POS
18

36

FUNNY, SOON AS WE GIVE IT AN EYE,
IT SOMEHOW CREATES PERSONALITY —
BECOMES ENTERTAINING OR ATTRACTIVE
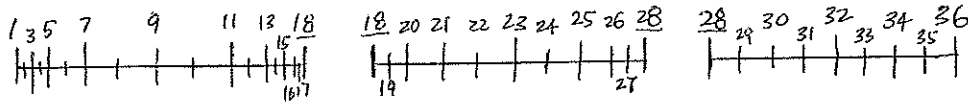and WE STOP PAYING ATTENTION TO the
'ANATOMY' OF WHAT'S HAPPENING.

CHARLIE CHAPLIN SAYS 'PERSONALITY
TRANSCENDS EVERYTHING ELSE.'

SPREAD APART —

EXTREME
1

28
the NEXT BREAKDOWN
OR PASSING-POSITION
↓

18
the PASSING POSITION
↓

36
EXTREME
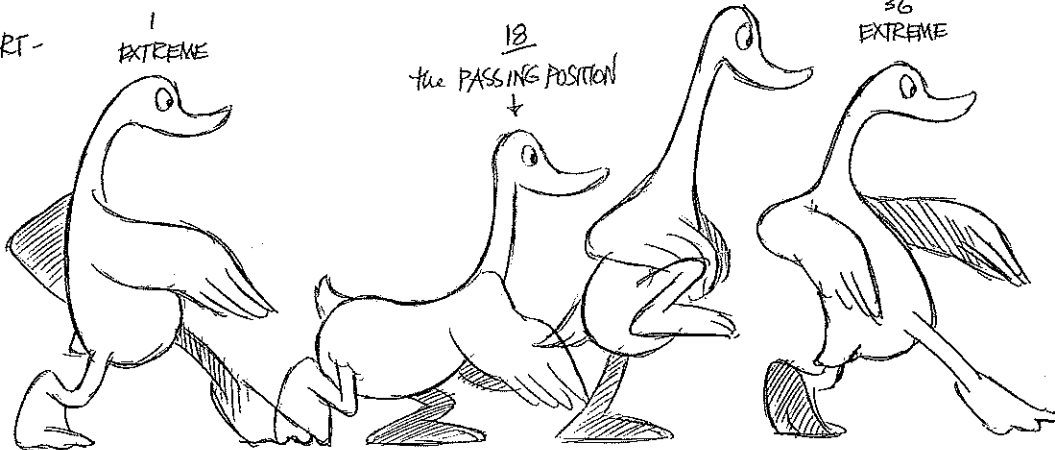
(AS IN
A WALK —
the ARMS —
— WINGS DO
COUNTER
the FEET
HERE)

THESE ARE
the NUMBERS
HE HAD ON
the 4 DRAWINGS
SO I'M MAKING
A GUESS AT
WHAT HIS
CHARTS WERE —

1 3 5 7   9   11 13 18
                    15
                   16 17

18 20 21 22 23 24 25 26 28
19   27

28 29 30 31 32 33 34 36
         31   33   35

AND/OR AS
WITH KEN'S —
The FEET
COULD BE
TREATED
EVENLY

BUT LOOK HOW CLEVER
THIS MAN IS! LOOK AT
HIS CHANGES OF SHAPE!
the AMOUNT OF CHANGE!
THIS IS WHAT HE'S REALLY
DOING —

— GOING FROM CURVE TO OPPOSITE CURVE TO STRAIGHT TO CURVED to OPPOSITE etc.

AFTER ART BABBITT FINISHED HIS FIRST MONTH OF INTENSIVE TRAINING AT MY LONDON STUDIO FOUR OF US SAT UP ALL-NIGHT and ANIMATED A QUICK SATIRE FOR HIM OF HIS SEMINARS.

I DID THIS HORSE SNEAK AS AN EXERCISE IN "OVER"-ANIMATION - WHICH CAME OUT KIND OF FUNNY - SHOWS HOW FAR WE CAN GO - SITTING RIGHT ON the BASICS.   (ON TWO'S)
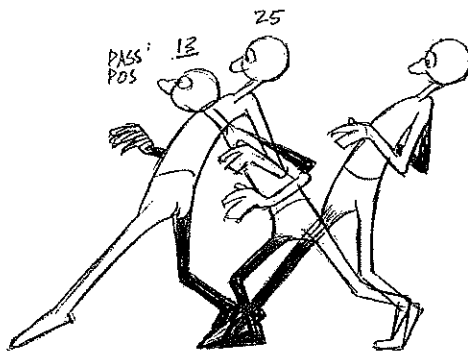
SNEAKING ON 12'S and 14'S

HERE ARE JUST The EXTREMES and the BREAKDOWNS - the MID-POSITIONS. I'VE CIRCLED the EXTREMES FOR CLARITY -
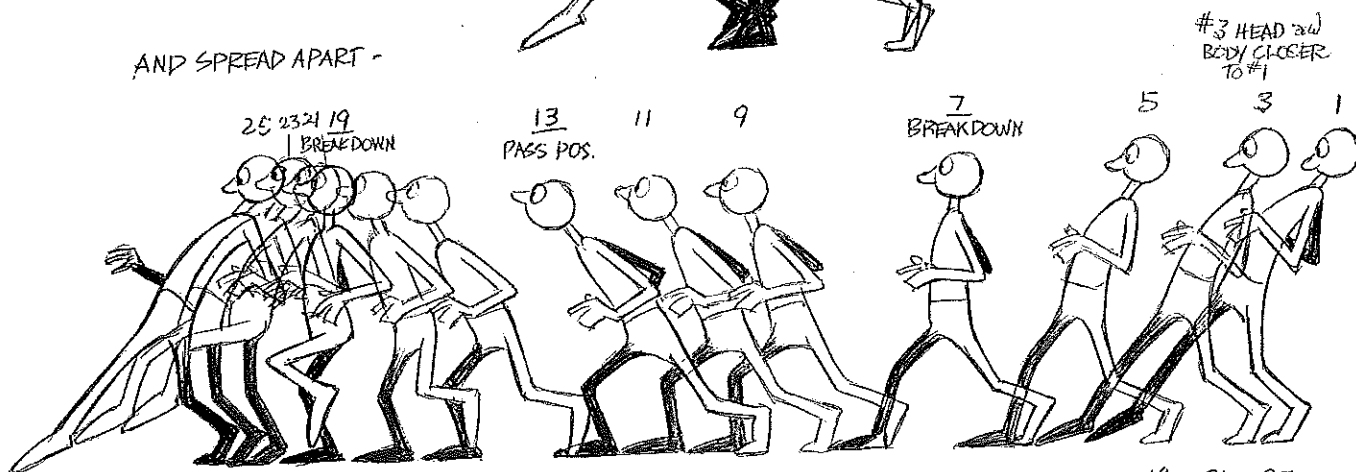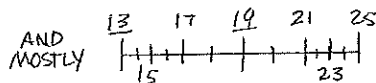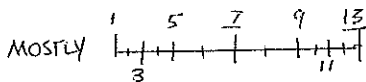
171
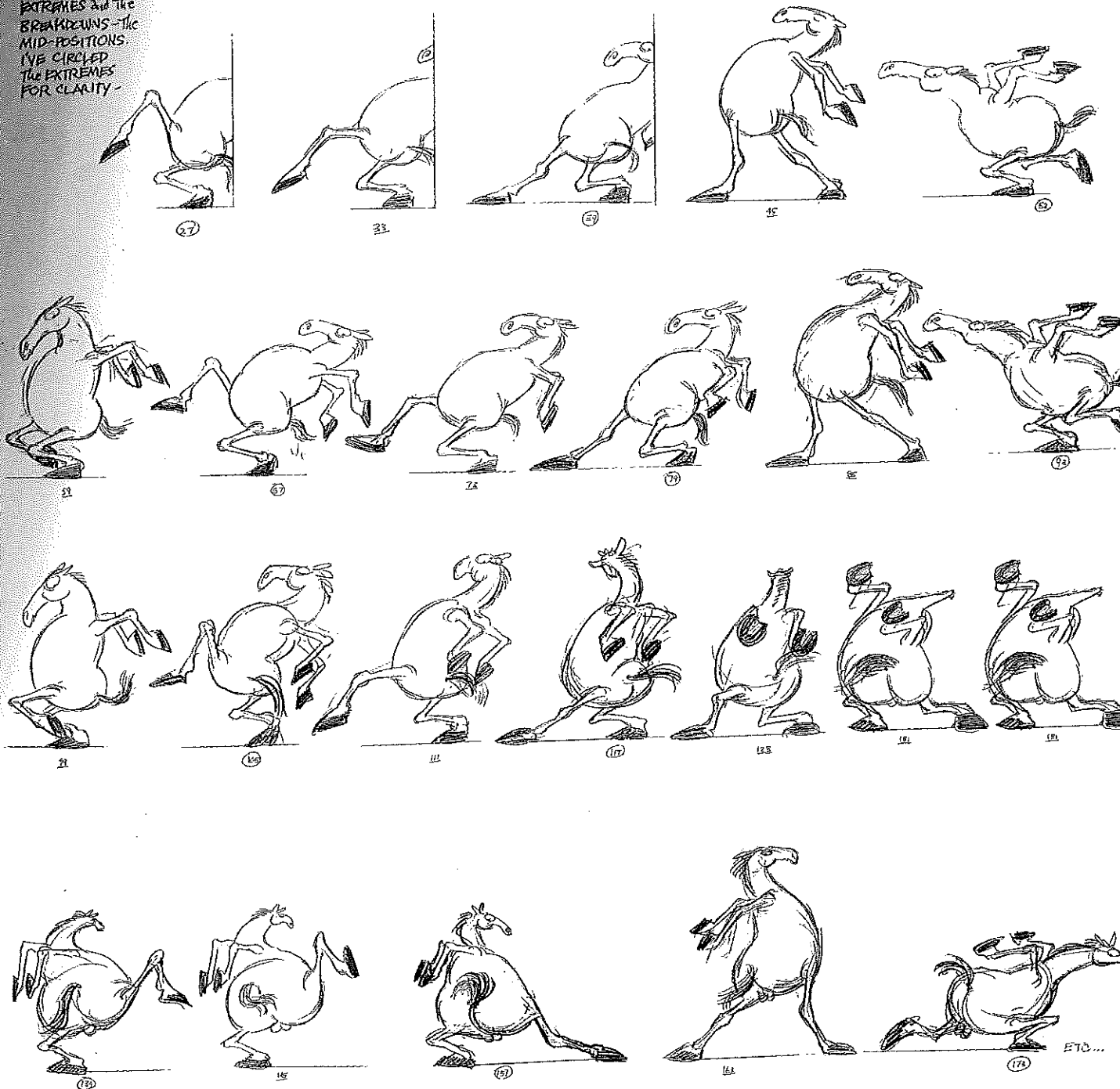
HERE'S A MORE CONSERVATIVE SNEAK ON 24's - 1 SEC FOR EACH STEP (KEN HARRIS MADE THIS ONE) IT'S TYPICAL OF KEN - NOT A LOT OF FANCY STUFF BUT DOES THE JOB PERFECTLY.

PASS POS   13   25

#3 HEAD and BODY CLOSER TO #1

AND SPREAD APART -

25 23 21 19 | BREAKDOWN   13 PASS POS.   11   9   7 BREAKDOWN   5   3   1

NOTE THE FOOT SWINGS FAST THROUGH THE MIDDLE AND PUTS DOWN GINGERLY

MOSTLY

```
     1   5   7   9  13
     |-+-+-+--+-+-+--|
       3          11
```

AND MOSTLY

```
    13  17  19  21  25
    |-+-+-+--+-+-+--|
      15          23
```
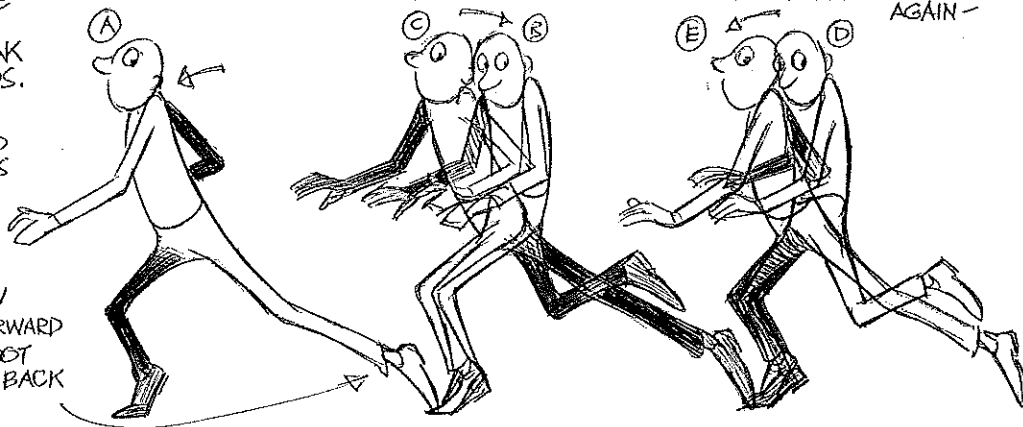
THE BIG MOVE THROUGH THE MIDDLE INDICATES THAT THIS SHOULD HAVE SINGLE IN BETWEENS and BE ON ONES.

(BACKWARDS SNEAK)

ROUGHLY THE SAME PATTERN AS A FORWARDS SNEAK - BUT BACKWARDS.

THE ARMS COULD OPPOSE THE LEGS AS IN A WALK

THE BODY GOES FORWARD AS THE FOOT REACHES BACK

THE BODY GOES BACK AS THE FOOT TAKES THE WEIGHT

THEN THE BODY GOES FORWARD AGAIN AS THE FOOT REACHES BACK AGAIN -

Ⓐ   Ⓒ Ⓑ   Ⓔ Ⓓ
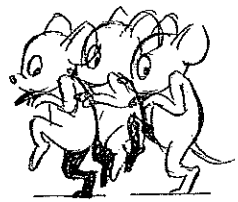
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The TIP TOE SNEAK

IT'S SOMETHING BETWEEN A WALK and A RUN and A SNEAK.

The FEET WORK
UP and DOWN
LIKE PISTONS
– HAS TO BE
ON ONES.

CAN BE AS QUICK
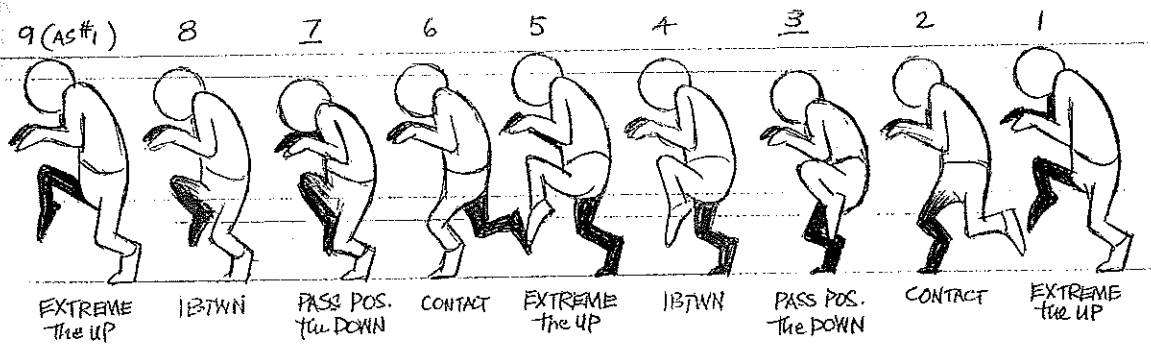AS 4's = 6 STEPS PER SEC.
OR ON 6's, 8's 10's
12's, 14's, WHATEVER.
BUT ITS MORE
SUITABLE FOR
FAST TIMING –

HERE'S the WELL-KNOWN
FORMULA FOR the SHORT-
LEGGED CREATURE (ON 4's)

ITS NOT MUCH OF
A PROBLEM WITH
A SMALL OR SHORT
CREATURE WITH
SHORT LEGS –

9 (AS #1)	8	7	6	5	4	3	2	1

| EXTREME The UP | I BTWN | PASS POS. The DOWN | CONTACT | EXTREME The UP | I BTWN | PASS POS. The DOWN | CONTACT | EXTREME the UP |

BUT WITH A TALLER FIGURE
WITH LONG LEGS WE'VE GOT
The FAMILIAR PROBLEM OF
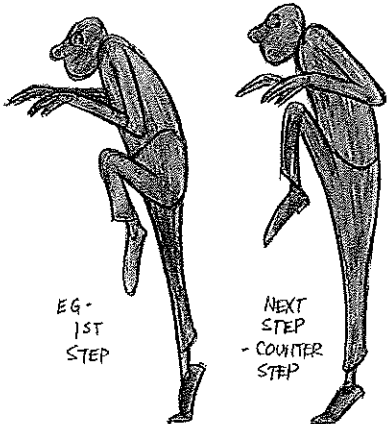TOO MUCH ACTION IN TOO
SHORT A SPACE OF TIME.

The FEET TEND TO 'FLICK'
DOWN WITH The TOP LEG
JUST LOOKING LIKE IT'S
HANGING THERE –
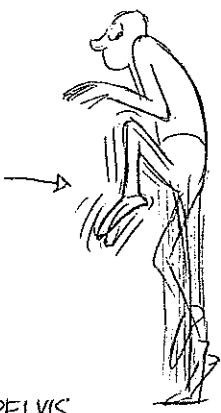
SO, TO GET AROUND THIS
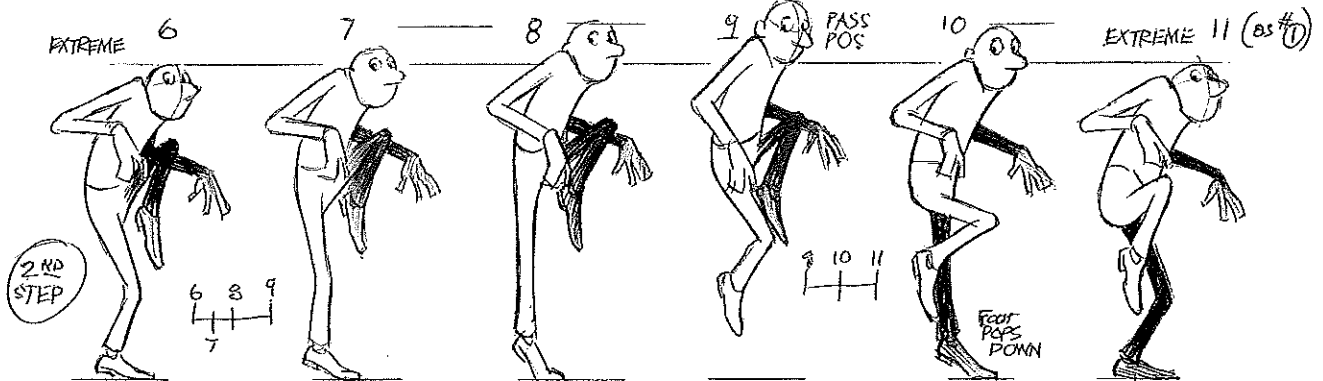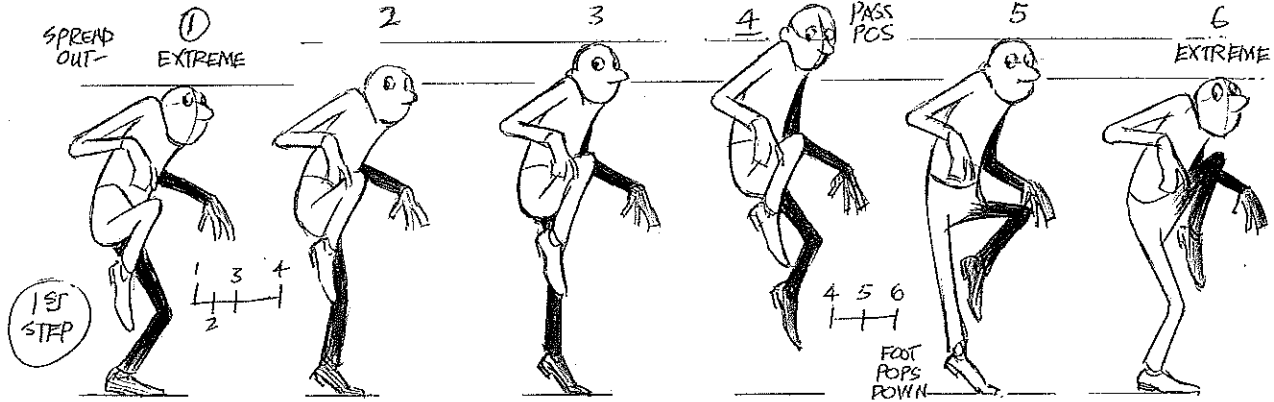WE TAKE A BIT LONGER
FOR The ACTION·
– PLUS WE CAN TWIST The PELVIS
– PLUS WE CAN VARY The CYCLE POSITIONS.

WE CAN
CHANGE The
SILHOUETTES
SLIGHTLY ON
ALL PHASES
OF EACH
STEP –
LOWER the
KNEE ETC.

EG·
1ST
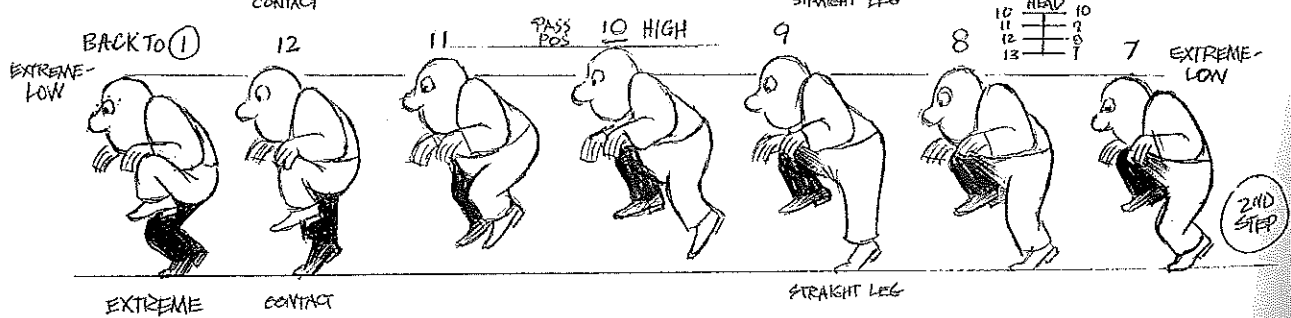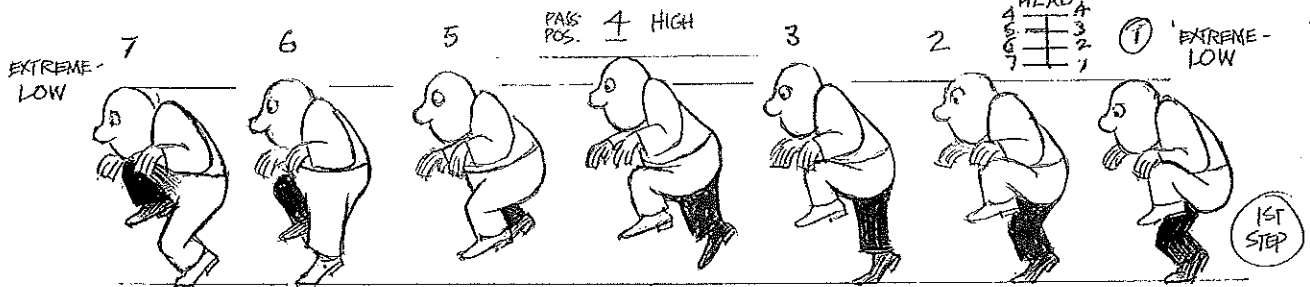STEP

NEXT
STEP
– COUNTER
STEP

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HERE'S ONE THAT WORKS -   (ON 5's = 5 STEPS PER SEC.)   HE'S UP IN THE AIR
FOR JUST ONE DRAWING

SPREAD OUT—   ① EXTREME   2   3   4   PASS POS   5   6 EXTREME

1ST STEP   1 3 4 / 2   4 5 6   FOOT POPS DOWN

EXTREME 6   7   8   9 PASS POS   10   EXTREME 11 (as #①)

2ND STEP   6 8 9 / 7   9 10 11   FOOT POPS DOWN

HERE'S ANOTHER VERSION THAT WORKS- (ON 6's = 4 STEPS PER SEC.)   HE'S UP IN THE AIR
FOR TWO DRAWINGS

EXTREME- LOW   7   6   5   PASS POS. 4 HIGH   3   2   HEAD   ① EXTREME- LOW   1ST STEP

CONTACT   STRAIGHT LEG

EXTREME- LOW   BACK TO ①   12   11   PASS POS 10 HIGH   9   8   HEAD   7 EXTREME- LOW   2ND STEP

EXTREME   CONTACT   STRAIGHT LEG

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WE CAN GET SOME COUNTERACTION GOING ON A FAST SNEAK (THIS IS EXAGGERATED)

CONTACT

the DOWN

PASS POS

the UP

CONTACT

KEEPING A
SLIGHTLY
DIFFERENT
PROFILE
FROM (A)

DELAY
BELLY

(A)   B   C   D   (E)

-AND
the
COUNTER
STEP-

CONTACT

The DOWN

PASS POS.

the UP

CONTACT

BELLY
DELAYED

ALSO A
SLIGHTLY
DIFFERENT
PROFILE
FROM C

(E)   F   G   H   BACK TO (A)

BOTH STEPS

EXTREME

PASS POS

EXTREME

PASS POS

EXTREME

(A)   B   C   D   (E)   F   G   H   BACK TO (A)
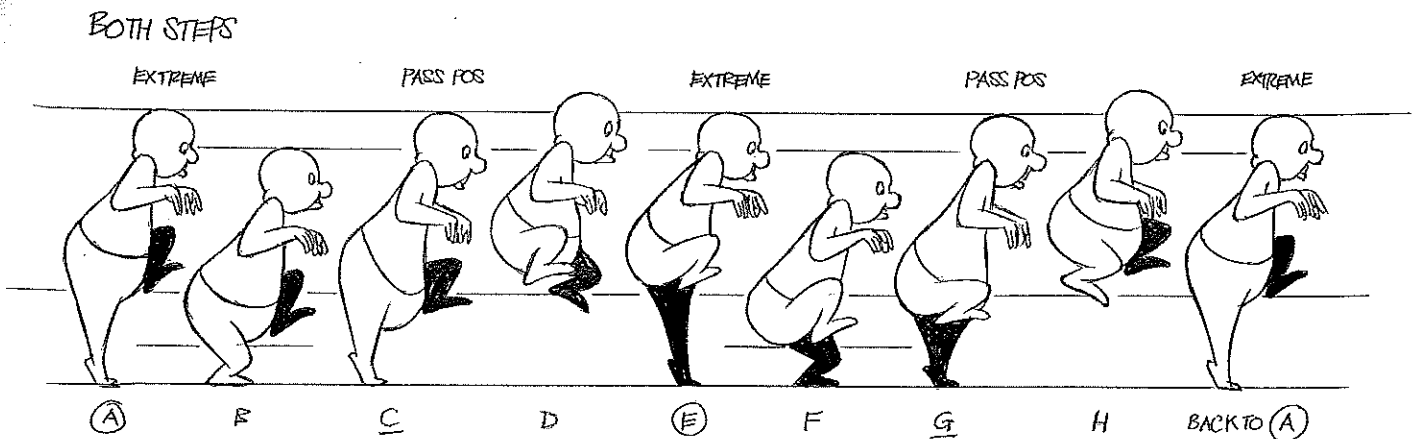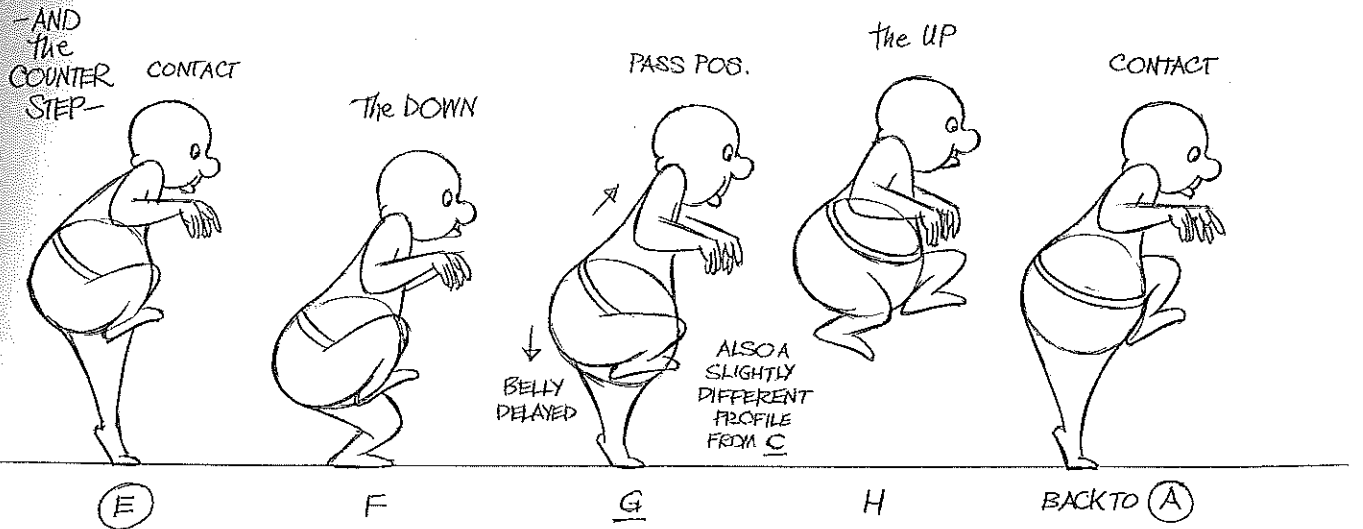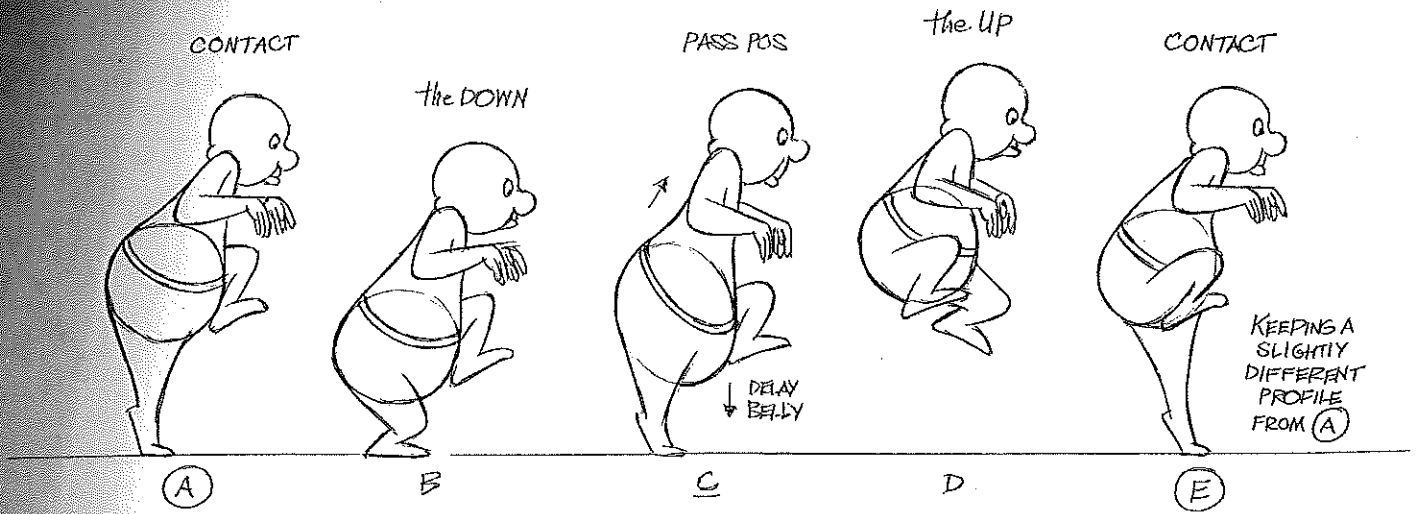
(ANYWAY, THIS IS the IDEA - WHICH CAN APPLY IN A REDUCED WAY TO A LESS CARTOONY ACTION and FIGURE.)

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