

# **GREAT NORTHERN RAILWAY LINE.**

GREAT NORTHERN RAILWAY.

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CASCADE DIVISION

## **TIME TABLE NO. 43.**

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EFFECTIVE 12:01 A. M.

**SUNDAY, JULY 12th, 1903.**

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General Rules, Regulating the Movement of Trains, are contained in Book of Rules for the Government of the Operating Department, a copy of which must be in possession of each employe in train service while on duty.

This Time Table is not intended for the information of the public, nor as an advertisement of the time or hours of any train. The Company reserves the right to vary from it at pleasure. It is for the information of employes only.

BETWEEN LEAVENWORTH AND SEATTLE.

Table with columns for WEST BOUND, EFFECTIVE 12:01 A. M. JULY 12th, 1903, and EAST BOUND. It lists train numbers (No. 401, 107, 101, 3, 1, 2, 4, 102, 106, 108, 218, 402), times, and freight details.

West Bound Trains are Superior to East Bound Trains of the same class. See Rule 42. Trains must not follow each other out of Stations less than 15 minutes apart. Destroy All Time Tables of previous date. (See Rule 5.)

# BETWEEN PACIFIC AVENUE AND BROWNSVILLE.

EAST BOUND						EFFECTIVE 12:01 A. M. JULY, 12th, 1903.	Distance from Seattle Telegraph Code.	WEST BOUND					
Third Class No. 409	Second Class No. 407	Second Class No. 111	Second Class No. 109	First Class No. 105	First Class No. 101			First Class No. 102	First Class No. 106	Second Class No. 110	Second Class No. 112	Second Class No. 408	Third Class No. 410
Freight Daily Except Sunday	Freight Daily	Mixed Daily Except Sunday	V. T. RY. Daily	Passenger Daily	Passenger Daily			Passenger Daily	Passenger Daily	V. T. RY. Daily	Mixed Daily Except Sunday	Freight Daily	Freight Daily Ex. Sunday
		6.00 AM De	1.30 PM De		10.20 AM De								
		6.05	1.35		10.25	W. Y.	D.	Brownsville	144.5	3.00 PM Ar	12.40 PM Ar	8.10 PM Ar	
		6.15	1.40		10.30			Liverpool	142.4 MN	2.50	12.30	7.55	
		6.35	1.55		10.45			Bon Accord	139.7	2.43	12.20	7.45	
		6.50	2.05	Mt. 102 PM Ar	10.57			Port Wells	138.1	2.27	12.05 PM	7.20	
		7.10			11.09			Cloverdale	137.8 CL	2.12	11.50 AM De	7.00	
		7.20 Ar			11.17			Hazlemere	132.7	1.58		6.40	
		7.35 De			11.25			Douglas B.C.	119.6	1.45 De		6.25 De	
		7.57 Ar			11.30			Blaine	119.5 BN	1.38 Ar		6.13 Ar	
		8.00			11.45	W.	D.	Custer	112.1	1.16		6.10 Ar	
		8.40			11.51			Enterprise	109.4	1.10		5.35	
		8.55			12.01 PM			Ferdals	106.5 FD	1.02		5.15	
		9.30			12.08			Brennan	103.9	12.55		5.00	
		9.45			12.25	T.	D.	Whatcom	97.1 RM	12.40		4.35	
	10.40 AM De	10.25 AM Ar		7.00 AM De	12.43	W.	D.	Fairhaven	95.2 FM	12.30	Mt 101	4.15 PM De	
	10.55			7.08	12.43			Chocomaunt	91.0	12.16		4.00 PM Ar	
	11.25			7.18	1.00	W.	D.	Samish	85.1	12.01 PM	9.25 PM Ar	3.45	
	12.01 PM			7.30	1.09			Bu	81.4 BO	11.52		3.10	
	12.35			7.39	1.29			Belleville	78.5	11.40		2.30	
	1.20	Mt 101 Mt 408		7.50	1.40	Pa 407 Mt 408	D.	Burlington	78.9 BU	11.30	Pa 408	1.55	
8.40 AM De	1.56			8.00	1.52	Y. I. W.	D.	Mt. Vernon	69.6 MV	11.14		1.20	
9.10	3.00			8.19	2.09			Stanwood	57.3 S	10.39	Mt 409	1.20	
9.40 Mt 408	3.30			8.31	2.22			Suyana	51.8 SA	10.24		1.05	
10.39 Mt 102	4.20			8.47	2.42			Marysville	45.7 MB	10.00		1.00	
11.10	5.05	Mt 410		9.00	2.57			Delta	36.8	9.48 De		0.45	
12.10 PM	6.10			9.23						9.43 Ar			
12.50 PM Ar	7.00	PM Ar Mt 108		9.43		W.C.O.Y.T.	D.N.						

**ALL TRAINS WILL USE NORTHERN PACIFIC TRACKS BETWEEN DELTA AND N. P. JUNCTION, 1.2 MILES.**

				9.47	3.02	D. N.	N. P. Junction	32.1	H	9.40	6.50				
				9.55	3.09	D. N.	Pacific Avenue	34.0	D	9.36	6.45				
No. 409 daily ex. Sunday	No. 407 daily	No. 111 Mixed Daily ex. Sunday	No. 109 V. T. RY. Daily	No. 105 daily	No. 101 daily					No. 102 daily	No. 106 daily	No. 110 V. T. RY. Daily	No. 112 Mixed Daily ex. Sunday	No. 408 daily	No. 410 daily ex. Sunday

**East Bound Trains are superior to west bound trains of the same class. (See Rule 43.)**

## SPECIAL RULES---Pacific Avenue to Brownsville.

**Destroy all Time Tables of Previous Date (See Rule 5.)**

All except first-class trains must be under absolute control while passing through yard limits at Delta, Burlington, Fairhaven and Whatcom. West yard limit board Whatcom, located 400 feet west of round house track switch.

Delta yard limit commences 500 feet east of junction switch, east of coal chute and extends to draw bridge at west end of Delta yard on Coast Line and around the point on the Bay side (old Coast Line) to Everett Jet. yard limit board. Between the hours of seven (7) p. m. and seven (7) a. m. the yard limit rules are suspended between Everett Junction and Delta Yard and all trains will be operated by train orders over this district. (Going toward Seattle is west bound.)

Switch at Everett Junction will be kept set for main line.

Destroy all time tables of previous date. See rule No. 5.

Standard clocks are located at telegraph office at Delta and Whatcom.

Trains on this division will be governed by Pacific Standard time.

Conductors of all trains, and Engineers running without conductors, must register their arrival and departure at Pacific Avenue, N. P. Junction, Delta, Belleville, Whatcom, Blaine and Brownsville, stating whether they are or not carrying

signals. No train will be considered registered unless such notation is made, and in case of omission, Conductors of trains affected will govern themselves accordingly and report the fact to the Superintendent.

No trains will cross international boundary at Blaine without permission of customs officers.

**Trains must not follow each other out of stations less than 15 minutes apart.**

Pacific Avenue, Whatcom and Brownsville are terminals for passenger trains. Delta, Whatcom and Brownsville for freight trains.

All trains must stop at draw bridges and railroad crossings at a distance not exceeding 200 feet from same.

Conductors of trains hauling logs must stop on all summits and see that brakes are properly set before descending grades.

Trains 407 and 408 will not carry passengers.

**All trains will be handled under absolute control and without regard to making scheduled time at all points where land or snow slides or falling rock are liable to be encountered.**

**J. C. DEVERY, Chief Train Dispatcher.**

## SKAGIT BRANCH.

EAST BOUND								WEST BOUND											
First Class		First Class		First Class		First Class		EFFECTIVE 12:01 A. M. JULY 12th. 1903	Station Numbers Distance from Anacortes	Telegraph Code	Capacity of Buildings in Cars	First Class		First Class		First Class			
No. 129		No. 127		No. 125		No. 121						No. 122		No. 126		No. 128		No. 130	
Passenger Sunday Only		Passenger Sunday Only		Mixed Daily Ex. Sunday		Mixed Daily Ex. Sunday						Mixed Daily Ex. Sunday		Mixed Daily Ex. Sunday		Passenger Sunday Only		Passenger Sunday Only	
						7.15	AM De	c n 54	Rockport	YW	RO	30	4.30	PM Ar					
						7.30	c n 48	Faber			70	4.00							
						7.45	c n 44	Grassmere		W	50	3.30							
						8.05	c n 39	Birdview			50	3.00							
8.50	PM De	10.40	AM De	6.00	AM De	8.50	c n 34	Hamilton		T	HM	55	2.30		9.45	PM Ar	2.35	PM Ar	
7.05		10.50		6.20		9.10	c n 30	Lyman		W			1.30		9.20		2.23		
				6.50		9.35	c n 24	Cokedale Junction					12.50					9.08	
7.30		11.10		7.20		10.10	c n 22	Woolley		Y	WL	25	12.20	PM	9.00		8.00		
				7.55	Mt 122 AM Ar	10.45	Ar	10.45	Sterling			8						8.45	
7.50	PM Ar	11.30		11.45	Mt 129 De	12.01	c n 17	Burlington		YW	BU	30	11.35	De Mt 121 Ar Mt 122	8.30	PM De	1.35	De	
				11.37		12.01	c n 15	Avon				14	8.00		1.30	Ar	8.30	PM De	
				11.44		12.15	c n 13	Fredonia				5	7.45		1.13				
				11.49		12.30	c n 11	Whitney				20	7.30		1.05				
							c n 8	Draw Bridge				25	7.05		1.00				
				12.08	PM	12.55	c n 5	Fidalgo				25	6.50				12.43		
				12.18		1.20	c n 3	Tenth Street		TWC	30	6.45					12.30	PM De	
				12.20	PM Ar	1.30	PM Ar	Anacortes		X	10								
Sunday Only		Sunday Only		Daily Ex. Sunday		Daily Ex. Sunday							Daily Ex. Sunday		Daily Ex. Sunday		Sunday Only	Sunday Only	

### NOTE.—CHANGE OF DIRECTION.

DESTROY ALL TIME TABLES OF PREVIOUS DATE. (SEE RULE 5.)

East Bound Trains are superior to West Bound Trains of same class. (See rule 43.)

All Trains will Register at Anacortes, Burlington, Hamilton and Rockport.

Yard limit at Burlington 2,500 feet west of transfer switch. All trains must be moved under perfect control expecting to find trains occupying main line within these limits.

All Trains will come to full stop Two Hundred Feet from Draw Bridge, and will not proceed until they get signal from Bridge Tender, nor exceed Four Miles an hour while crossing Draw Bridge.

All Trains will come to Full Stop before passing over R. R. Crossing at Burlington and Woolley.

Water tank at Minkler's Mill, two miles east of Lyman.

### NAME AND LOCATION OF SPUR TRACKS.

NAME OF SPUR	Location	STATIONS		Distance	Track Opens	Capacity Cars	NAME OF SPUR	Location	STATIONS		Distance	Track Opens	Capacity Cars	NAME OF SPUR	Location	STATIONS		Distance	Track Opens	Capacity Cars
		WEST	EAST						WEST	EAST						WEST	EAST			
House Track	0.0	Anacortes		0.1	West	3	Burlington Mill Spur	16.0	Burlington		0.6	East	5	Hop Ranch Spur	30.6	Lyman		0.8	East	3
Repair Track	0.6	Tenth St.		0.2	West	15	Holbrook's Spur	20.8			0.4	East	7	L. L. Spur	33.0			0.2	East	17
Store Track	0.6	Tenth St.		0.2	West	8	Sound Iron Spur	21.2			0.0	East	7	Alder Spur	33.9	Hamilton		0.7	East	17
Skagit Mill Spur	1.1	Tenth St.		0.7	West	30	Johnson's Spur	22.2	Woolley		1.0	East	7	Hightower No. 1	35.9	Hamilton		1.9	East	17
Storm Mill Spur	1.5	Tenth St.		0.9	West	8	Tyee Spur, Y	22.6	Woolley		1.4	Both ends	17	Hightower No. 2	36.5			1.8	East	16
Skagit Mfg. Spur	2.3	Tenth St.		1.7	West	6	Green Mill Spur	24.5	Woolley		3.3	East	17	Wiley Spur	44.6	Grassmere		1.0	East	3
Log Rollway	2.5	Tenth St.		1.9	Both ends	25	Duncan's Spur	26.0	Cokedale Jct.		1.5	East	35	Van Horne's Spur	47.2			0.5	West	18
Gravel Pit Spur	6.5	Tenth St.		5.9	East	9	Minkler's Mill	27.6	Cokedale Jct.		3.0	Both ends	17	Hightower No. 3	46.8			1.0	West	15
Hawkins Spur	11.7	Fredonia		0.7	West	4	Child's Spur	28.2	Cokedale Jct.		3.6	East	3	Sauk Spur	51.5			2.0	East	2
J. C. Waugh Spur	13.6		Avon	0.3	East	2	McLeod's Spur	30.1	Lyman		0.2	East	5							



**NAME AND LOCATION OF SPUR TRACKS.**

NAME OF SPUR	Location K. F.	STATION		Distance Miles	Track Opens	Capacity Cars	NAME OF SPUR	Location K. F.	STATION		Distance Miles	Track Opens	Capacity Cars	NAME OF SPUR	Location K. F.	STATION		Distance Miles	Track Opens	Capacity Cars				
		East	West						East	West						East	West				East	West		
Woods Spur	1688.1	Chiwaukum	2.5	East	3	Hall Hill Mill Co.	32.5	Everett Jct.	0.5	East	4	Sound Shingle Co.'s Siding	79.4	Bellville	2.9	East	8	Butler Spur	77.6	Bellville	1.0	East	2	
Foss River Spur	1728.0	Tonga	1.0	East	5	Bell Mill Spur	32.8	Everett Jct.	1.0	East	36	Desmond Spur	81.7	Alger	1.4	East	6	Gaudet Spur	82.5	Alger	0.0	East	12	
Kirby Mill Spur	1732.0	Skykomish	0.1	East	12	Nali House Spur	32.8	Everett Jct.	1.0	West	24	Samish Lake Spur	85.2	Samish Lake	0.1	East	80	Owens Spur	85.2	Off Samish Sp'r	0.1	West	8	
Skykomish Mill Co.'s Spur	1732.4	Skykomish	0.3	East	13	Nickerson Mach'y Co.	33.1	Everett	0.0	West	4	Lindley Spur	85.2	Off " Lake	0.1	East	3	Winner Shingle Co.'s Spur	85.2	Row	0.2	West	0	
Berlin Spur	1733.6	Skykomish	1.5	West	1	Everett Milling Co.	33.3	Everett Jct.	1.5	East	10	McCoy Spur	85.2	Bow	1.2	West	3	Alger Mineral Spur	85.5	(Old Line)	1.2	West	9	
Grotto Mill Spur	1735.6	Grotto	0.5	East	8	Clark-Nickerson Mill	34.0	Everett Jct.	1.8	West	45	Blanchard Spur	84.1	Sautiah	1.0	West	3	Puget Sound Mill Track	94.9	Fairhaven	0.0	West	9	
G. N. Shingle Co.'s Siding	1739.6	Grotto	3.5	Both ends	24	Wheelhan Spur	34.1	Everett Jct.	1.9	West	3	Export Mill Spur	95.0	Fairhaven	0.0	West	10	Export Mill Spur	95.0	Fairhaven	0.0	West	10	
Heybrook Spur	1744.7	Index	1.5	East	2	Neffs Spur	34.5	Everett Jct.	1.0	East	50	Cannery Track	95.2	Fairhaven	0.0	East	15	Cannery Track	95.2	Fairhaven	0.0	East	15	
Ellis Quarry Spur	1745.9	Index	0.5	West	5	Blackman Spur	36.0	Long Siding	0.4	East	9	Pacific Sheet Mill	95.3	Fairhaven	0.4	East	3	Pacific Sheet Mill	95.3	Fairhaven	0.4	East	3	
Soderburg Spur	1746.9	Index	0.7	West	12	Union Slough	37.3	Marysville	1.5	East	8	Loggie Spur	97	Whatcom	0.0	West	21	Loggie Spur	97	Whatcom	0.0	West	21	
May Creek Spur	1754.6	Gold Bar	0.5	West	3	Cox's Spur	42.7	Marysville	2.0	West	2	Mill Spur (Simpson)	98.3	Whatcom	1.0	West	8	Mill Spur (Simpson)	98.3	Whatcom	1.0	West	8	
Robinson's Spur	1755.6	Gold Bar	0.5	East	26	Marysville Shingle Co.	41.7	Marysville	2.0	East	3	LaPointe Spur	104.2	Brennan	0.0	East	2	LaPointe Spur	104.2	Brennan	0.0	East	2	
Black Bros. Spur	1757.4	Wallace	0.0	East	26	Zindorf Spur	42.7	Marysville	3.9	East	2	Henry Spur	103.0	Brennan	1.0	East	6	Henry Spur	103.0	Brennan	1.0	East	6	
Rileys Spur	1757.7	Sultan	3.1	East	4	Kennedy Spur	45.2	Marysville	4.2	East	8	Sand Pit Spur	108.7	Enterprise	0.5	East	12	Sand Pit Spur	108.7	Enterprise	0.5	East	12	
Casesy Spur	1759.5	Sultan	1.3	East	5	British Spur	45.5	Silvana	4.4	East	15	Shields Spur	108.9	Enterprise	0.3	East	2	Shields Spur	108.9	Enterprise	0.3	East	2	
Owens Spur	1763.6	Monroe	4.7	East	16	Summit Mill Co.	46.0	Marysville	4.7	East	2	Enterprise Spur	109.2	Ferndale	1.1	East	6	Enterprise Spur	109.2	Ferndale	1.1	East	6	
Holmquist Spur	1767.3	Monroe	1.0	East	4	English Spur	47.0	Silvana	4.7	East	2	McDonald Spur	113.0	Custer	1.2	East	3	McDonald Spur	113.0	Custer	1.2	East	3	
Monroe Gravel Pit	1768.3	Monroe	0.0	East	56	Norman Spur	51.0	Silvana	1.1	East	5	Melrose Spur	114.3	Custer	2.5	East	4	Melrose Spur	114.3	Custer	2.5	East	4	
Wood and Iverson Spur	1771.3	Monroe	3.0	East	5	Rabela Spur	51.7	Silvana	1.8	West	5	Blaine Spur	119.0	Blaine	1.9	East	4	Blaine Spur	119.0	Blaine	1.9	East	4	
Cascade Cedar Spur	1775.2	Snohomish	0.3	East	40	Manley & Church Spur	54.3	Stanwood	1.4	East	6	Shelton Spur (off Blaine spr.)	119.0	Blaine	1.9	East	2	Shelton Spur (off Blaine spr.)	119.0	Blaine	1.9	East	2	
Creosote Spur	1780.6	Lowell	0.5	West	25	Hale Spur	54.3	Stanwood	1.5	West	4	City Dock Spur (off City Dock spur)	122.4	Blaine	3.4	West	4	City Dock Spur (off City Dock spur)	122.4	Blaine	3.4	West	4	
House Track	1781.1	Lowell	0.0	East	25	Ketchum Spur	59.6	Stanwood	2.0	East	2	Monarch Mill Spur (off City Dock spur)	122.4	Blaine	3.4	West	9	Monarch Mill Spur (off City Dock spur)	122.4	Blaine	3.4	West	9	
Seiffert Spur	1781.3	Pacific Ave.	0.0	East	9	Morrison Mill Spur	61.6	Fir	2.2	East	6	Hazelmere Spur	127.4	Blaine	3.4	West	4	Hazelmere Spur	127.4	Blaine	3.4	West	4	
State Mill Co.	35.2	Everett	0.5	East	12	Milltown	62.2	Fir	2.2	East	6	Gravel Spur	137.0	Port Kells	2.4	East	3	Gravel Spur	137.0	Port Kells	2.4	East	3	
Power House Spur	1782.2	Everett	0.1	West	5	Hawley Spur	62.4	Fir	2.0	West	3													
G. N. Clay Co. Spur	10.2	Metum	2.0	West	6	Skagit Crossing	63.4	Fir	1.0	East	2													
E. W. Mills Spur	12	Richmond Bch	2.3	East	3	Little Mountain Spur	67.7	Mt. Vernon	3.0	East	3													
Brady's Spur	17.4	Edmonds	0.0	West	3	Skagit Spur	69.8	Mt. Vernon	3.0	East	3													
Sand Spur	14.0	Edmonds	3.4	West	7	Burlington Quarry	72.5	Burlington	0.5	East	14													
						Samish Pit	77.0	Belfast	0.6	East	33													

**DERAIL SWITCHES.**

Derail Switches must always be set for derail except when in actual use, whether there are any cars on these tracks or not.

Cascade Tunnel, east passing track lead, 30 feet from main line.

Wellington, west end passing track.

Wellington Safety Switch, 70 feet west of station, on main line.

Alvin, 150 feet east of west passing track switch head block.

Tonga, west end passing track.

Index Passing track 120 feet from west head block.

Roby, west end passing track.

Ellis Quarry Spur.

Power House Spur, 105 feet from head block.

Samish Lake, M. P. 85.2, on Spur, 3635 feet north from head block.

Chuckanut, east end siding. B. B. & E. Transfer Track east end.

**Capacity of Different Classes of Engines in Tons in Addition to Weight of Engine, Tender and Caboose—Cascade Division.**

STATIONS	Rating Grade	GOING EAST							
		C L A S S							
		M, M, M, M, 45, 45, 48	38	39-43	37	35-36	33-34	30	
		20x32 210 lb	19x32 200 lb	20x26 180 lb	19x26 180 lb	19x24 180 lb	19x24 150 lb	18x24 145 lb	17x24 145 lb
Everett to Skykomish	1.0	1200	1000	865	775	715	575	435	385
Skykomish to Cascade Tunnel	2.2	600	480	410	360	340	276	200	183
Cascade Tunnel to Leavenworth	Down								

  

STATIONS	Rating Grade	GOING WEST							
		C L A S S							
		M, M, M, M, 45, 45, 48	38	39-43	37	35-36	33-34	30	
		20x32 210 lb	19x32 200 lb	20x26 180 lb	19x26 180 lb	19x24 180 lb	19x24 150 lb	18x24 145 lb	17x24 145 lb
Leavenworth to Cascade Tunnel	2.2	600	480	400	360	340	275	200	185
Cascade Tunnel to Lowell	Down								

The following will govern when handling empty cars: With 10 or less empty cars in a train no allowance will be made for wheel friction; with 10 to 20 empty cars in a train, add to actual weight 5 tons for each empty car for wheel friction; with more than 20 empty cars in a train add 6 tons per car for wheel friction.

Time Inspectors: Leavenworth, F. S. TAYLOR; Everett, S. O. WALLGREN; Seattle, J. F. HUNTER.

F. S. ELLIOTT, Assistant Superintendent. W. D. SCOTT, Superintendent. H. A. KENNEDY, Asst. General Superintendent. GEO. T. SLADE, General Superintendent. F. E. WARD, General Manager.

## CONTENTS OF MEDICAL CASE.

### Conductors Must Study and Familiarize Themselves with the List of Articles in the Case, and Their Uses.

No. 1. Rubber Bandage and Tourniquet, for stopping hemorrhage; apply on sound flesh above the wound, draw tightly each time, and encircle the limb until the whole bandage is used. **Fasten securely in slot.**

No. 2. Twelve Assorted Muslin Bandages, to hold dressings in place, assist in stopping hemorrhages, and hold splints upon fractured limbs; wind around the injured part from below upward.

No. 3. Six packages of Borated Gauze, a prepared dressing for open wounds, always used to cover large wounds; apply wet (by dipping in solution, see No. 7) directly to the wound.

No. 4. Four packages Absorbent Cotton. This is for making compresses, and to assist in covering a large wound; **Do not apply directly to the wound.**

No. 5. One ounce Styptic Cotton. This Cotton is permeated with a substance which stops small hemorrhages; apply directly to small wounds and hold in place with muslin bandage.

No. 6. Two ounces Bicarbonate Soda, for burns and scalds, one tablespoonful to a quart of water; saturate a piece of the gauze and apply over a burn or scald, and fasten with bandage.

No. 7. One bottle Corrosive Sub. Tablets. These small tablets are to be dissolved in clean water, preferably warm, in the proportion of one tablet to a pint of water; with this solution you disinfect a wound and keep it free from infection. **THEY ARE POISONOUS** if swallowed or the solution be drunk.

No. 8. Four Surgical Needles, to be used for closing small cuts or jagged wounds, after thoroughly cleansing with the sublimate solution.

No. 9. One Pair Scissors, used in cutting dressings, bandages, clothing, etc.

No. 10. One Pair Forceps, used for removing bits of gravel, and to seize a bleeding artery while it is being tied.

No. 11. One Dozen Envelopes Catgut (two sizes), to be used in tying an artery when it is seen free and bleeding in a wound, also for closing small wounds. **Never Save any Catgut** until the envelope is open. Note directions on envelopes.

No. 12. One Roll Adhesive Plaster, for closing small torn or cut wounds, after they are cleansed with the sublimate solution. **It needs no heat; apply directly to the skin, which must be perfectly dry.**

No. 13. One Cake Red Cross Soap, used in cleansing an injured part around a wound.

No. 14. One Can Chloroform, for anesthesia.

No. 15. One Ounce Antifebrine, an antiseptic powder for dusting on fresh wounds.

No. 16. One Hand Brush, for brushing the hands and nails thoroughly with the Red Cross Soap before handling an open wound.

No. 17. One Enamel Tray, for corrosive sublimate solution (see No. 7).

No. 18. One Yard Wire Gauze, for making splints (see directions under fractures, No. 5).

No. 19. One Dozen Safety Pins.

No. 20. One Pyramid of Pins.

### RULES FOR TREATMENT OF THE INJURED IMMEDIATELY AFTER AN ACCIDENT.

1. Shock. This condition usually follows every severe injury. The chief point is to restore heat to the body as soon as the injured person is put in a comfortable position. Do this by covering with heavy coats, previously warmed, if practicable. Cut off the shoes or boots and wrap the feet in a warmed coat or blanket. Give only small doses of whiskey in hot water.

2. Hemorrhage (Bleeding). This follows shock, and is rarely severe until reaction takes place. Too much stimulation increases hemorrhage and for this reason it is best to give only a little stimulant, well warmed, and repeat the dose if reaction is delayed.

Bleeding of two kinds: First, arterial, when the blood comes out bright and red and in spurts. Second, venous, when the blood is dark and flows in an even stream.

A. To stop hemorrhage when the wound is large and the blood comes out in spurts. Apply the rubber band tightly just above the wound, previously raising the wounded part, especially if it be a limb. Be careful to put the band on **UNINJURED FLESH** if the limb be badly crushed and about three inches above the crushed tissues, else it would slip down and increase the hemorrhage. **Be very careful to see that the band be firmly fixed before leaving it.** Small wounds, even though the hemorrhage be arterial, require only a firm compress of the sublimate gauze placed immediately over the wound and bandaged tightly in place with one of the muslin bandages. It is best after this to bandage firmly from the extremity (hand or foot) upward to beyond the wound with muslin bandages.

B. Venous bleeding, which occurs when the wound is shallow (does not go deeper than the skin), as a rule requires firm pressure over the wound and especially below it. If the wound be quite small, put a wad of styptic cotton into and over it and bandage tightly in place, and then apply a bandage from below upwards over and beyond the wound. If the wound be extensive, fill it full of sublimate gauze and then put a thick wad of absorbent cotton over it and bandage tightly from below upward.

C. Bleeding from the head, if only the scalp is involved, may be controlled by bringing the wounded or torn surfaces together and applying along the wound a thick layer of styptic cotton, and over this another layer of absorbent cotton and a tight bandage. It is well to pass the bandage under the chin if the wound be on top of the head, as this holds it firmer and tighter.

3. Remove the clothing from the wounded part by cutting it away. Do not attempt to tear or draw clothing off, as this may further injure the wounded part. **Always see the wound and know by your eye just what the nature of it is.**

4. After Hemorrhage has been stopped. The next point is to prevent the wound from being infected and thus prevent blood poisoning. To accomplish this the wound should be cleaned if badly soiled. If soiled by oil and soot or dirt, bathe it gently with a small quantity of antiseptic soap and warm water. After it is apparently clean, wash it out carefully with a pint of warm water in which one of the corrosive sublimate tablets has been dissolved, using a piece of gauze to do this. Then wet several layers of the borated gauze in a fresh solution of the same strength used in washing the wound and lay them over the wound and bandage in place with a muslin bandage. Always cover an open wound with a piece of gauze

wet in the solution of corrosive sublimate (one tablet to a pint of water) before transporting the wounded man. Never allow an open wound to remain unprotected longer than the time employed in stopping hemorrhage. **Remember a soiled covering is worse than none at all, however.**

5. Fractures. If a bone be broken in any of the limbs the member should be firmly fixed before the injured individual be moved. If this be not done, great injury may result by the movements of the sharp fragments of the bone while the individual is being transported. Use flat piece of wire gauze, broken or cut into strips long enough to reach beyond the two nearest joints, will do. A bundle of twigs or stout straws may also serve when nothing else is to be had. Always put one of the improvised splints on either side of the limb, then tie a bandage over the splints at either extremity and in the middle. If there be a wound treat it according to the foregoing rules and then apply the splints, using some clean gauze as padding or some strips torn from clothing. If there be no wound, apply the splints over the trousers or sleeve. If nothing of any kind can be obtained to make a splint, tie the fractured leg or thigh to the sound one, or the fractured arm firmly to the side of the body, by a muslin bandage.

6. Compound fractures are fractures accompanied by a wound of the soft tissues at the point of fracture, so that the bone is exposed to the air. In these cases treat hemorrhage and the wound according to the foregoing rules and then apply splints. If the bones project beyond the skin, remember to bring them back into place by pulling the extremity in the direction of the displacement, never in the direction the bone normally should be, until the ends of the fragments are quite free from any over-riding. Be very careful always to cover these wounds with the wet sublimate GAUZE and bandage it on.

7. Burns. Carefully remove the clothing by cutting it off, if the part be clothed, and apply immediately three or four thicknesses of the borated gauze wet in warm water, in which one tablespoonful of the bicarbonate of soda to the quart has been dissolved. As a rule never attempt to clean burns immediately after they occur. Cover the wounded part immediately as directed above and leave the cleansing to the surgeon afterward.

Extensive burns are attended by great shock as a rule, and require free stimulation. As burns are very rarely followed by hemorrhage, stimulants may be and should be given in considerable quantities.

8. Prostration from Excessive Heat. In these cases (not sunstroke) the face is pale, lips colorless or blue, breathing slow and quiet, pulse slow and very weak. Place the patient on his back, with his head level with his body, and loosen clothing. Apply heat to the surface of the body and extremities. Bathe the face with warm water into which a little alcohol or whiskey has been poured, and if he can swallow, give the patient an ounce of whiskey as much warm water.

B. Prostration from Drinking too much Ice Water when Overheated. The face is red or even purple, the breathing heavy and irregular, pulse irregular. Loosen clothing, place on back with head slightly elevated. Give hot drinks, apply heat to the spine and the extremities.

9. Position in which a Patient should be Placed after Injury. Injuries to the head require that the head be raised higher than the level of the body. In all cases, if practical, lay the patient on his back with the limbs stretched out in their natural positions; loosen the collar and wrists, and unless the head be injured, remember to have the head on the same level as the body. Do not bolster it up with anything.

### INSTRUCTION FOR STRETCHERS.

The equipment includes—

- 1 Stretcher,
- 1 Pair of Blankets,
- 1 Pillow,
- 1 Pillow Case,
- 1 Rubber Pillow Case,
- 1 Water-proof Cover,
- 1 Pair Wall Brackets.

The bedding and side pieces are to be kept strapped on the stretcher, and the latter placed on the wall bracket.

When about to use the stretcher, unbuckle the straps from the side pieces which hold down the bedding, and buckle them tightly underneath, to guard against the breaking of a spring; place the side pieces properly on the sides, place the rubber cover over the stretcher for protection against blood and discharges. The blanket is to be used double, as a cover for the patient.

Whenever necessary to do so, the patient may be lifted on the inner portion of the stretcher resting on the springs, without lifting the whole stretcher. In cramped positions, and for purposes of examination, this will be found convenient.

When storing the stretcher away, fold the blanket and pillow neatly into a narrow, even and compact parcel, and envelop this in the rubber cover, folding in the ends first. Place this on the stretcher with the side pieces on top, to assist in holding it in position, then pass the straps through the keepers on the side pieces, and fasten all snugly in place. This will protect the bedding, if properly done, from moths and wet. The whole stretcher should then be placed on the brackets.

The blanket should be taken out occasionally and shaken, to prevent damage from moths, as well as to keep it cleanly at all times. Replace at once, so that the stretcher is ready for immediate use whenever required.

The stretcher and bedding must not be used for any other purpose than in transporting injured persons.

Agents will be personally responsible for the care of property, and will be particular to take proper receipts whenever it is allowed to go out of his possession, and will notify his Division Superintendent when sent out and by whom.

Stations where stretchers are kept are as follows:

St. Paul Frt. Office,	Sioux Falls,	Glasgow,	Leavenworth,
St. Paul Shops,	Sioux City,	Havre,	Everett,
Minneapolis Jct.,	Breckenridge,	Great Falls Shops,	Carman,
Hamline Transfer,	Grand Forks,	Cut Bank,	Cass Lake,
St. Cloud Shops,	Larimore,	Libby,	West Superior,
Melrose,	Devils Lake,	Spokane Shops,	Sandstone,
Barnesville,	Minot,		Swan River.
Willmar,	Williston,		

### COMPANY SURGEONS.

St. Paul.....	J. A. QUINN, Chief Surgeon.		
Leavenworth.....	G. W. HOXSIE	Seattle.....	A. B. KIRBEE, Onelist
Everett.....	W. C. COX	Seattle.....	J. B. BAGLSON
		Fairhaven.....	H. A. COMPTON